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RiscStation R7500 Internet
Comprehensive review of dedicated 'Net machine

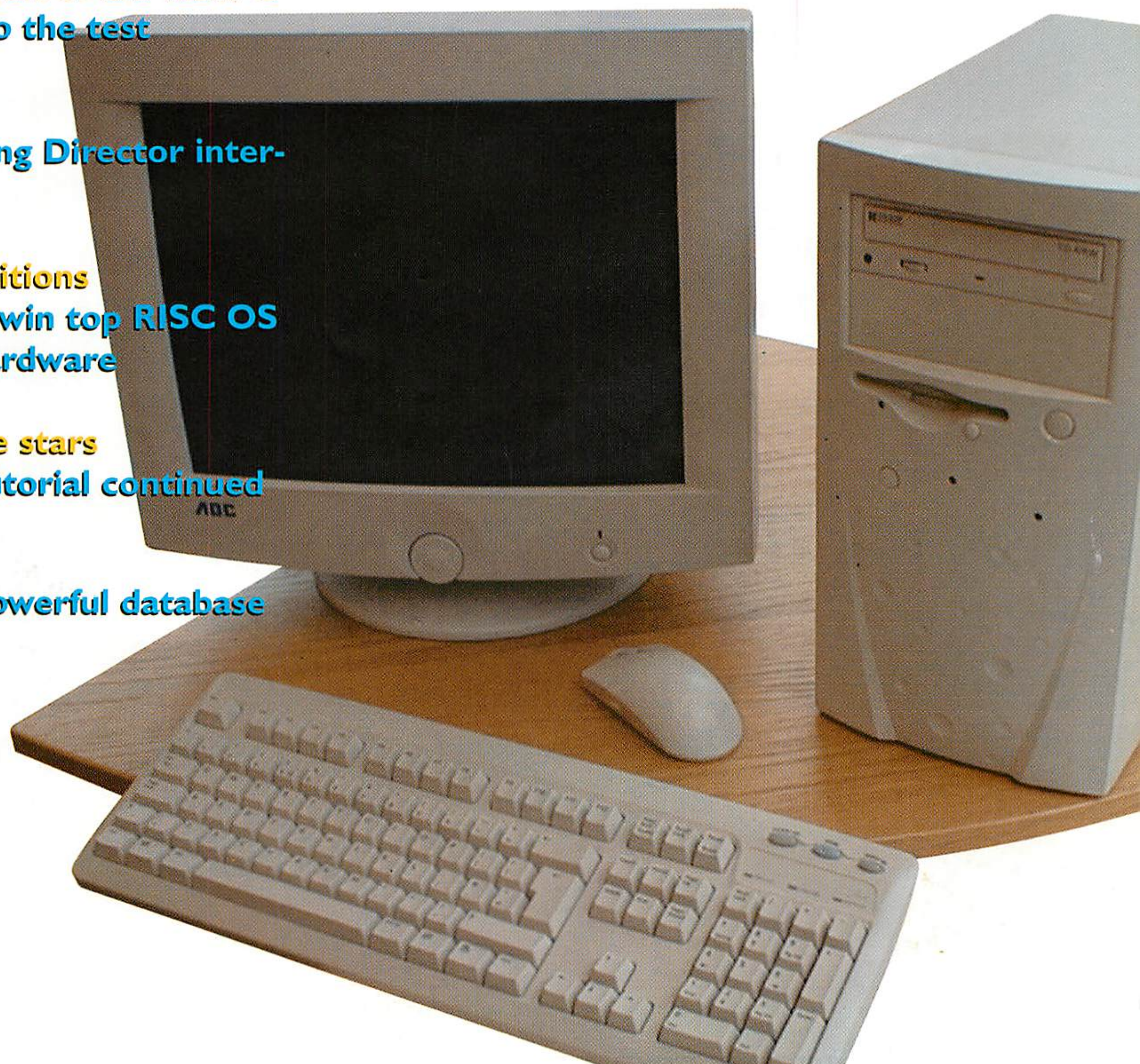
Viewfinder 2
Brand new version of the RiscPC AGP card put to the test

In the hot seat
Castle's Managing Director interviewed

THREE competitions
Your chance to win top RISC OS software and hardware

A night with the stars
*** Commands tutorial continued**

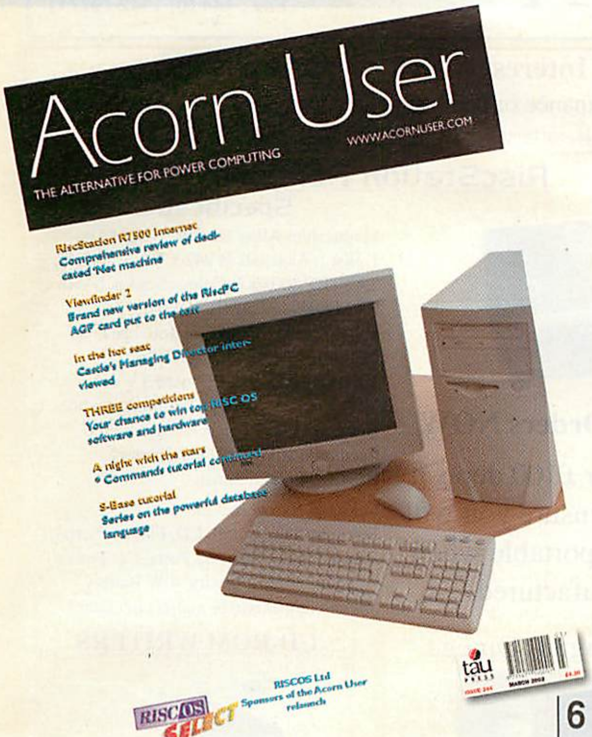
S-Base tutorial
Series on the powerful database language



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March 2002 Issue 244



Editor's Comment

The relaunch of *Acorn User* has been an overwhelming success. We've had lots of positive feedback and some useful, constructive suggestions. A big thank-you goes to those who have taken the trouble to write in and tell me what you think of things. We've published some of your letters on page 65.

Visitors to acornuser.com will have noticed that, in tandem with the relaunch of the magazine, the *Acorn User* Web site has been redesigned and relaunched, too. Featuring a slick, modern design, the Web site is now under continued development.

Acorn User is not the only player in the *RISC OS* market who has been busy releasing new things to an unsuspecting public. RISCOS Ltd have now released a *Kinetic*-compatible version of *Select* and have recently made an announcement regarding development of *RISC OS* for embedded products and *RON*. The first product to reach fruition using Castle's *NEURON* technology is the *SLYM* from Cumana, whilst RiscStation's portable is almost upon us.

The next few months look to be very interesting for *RISC OS* users.

Michael Stubbs
Editor

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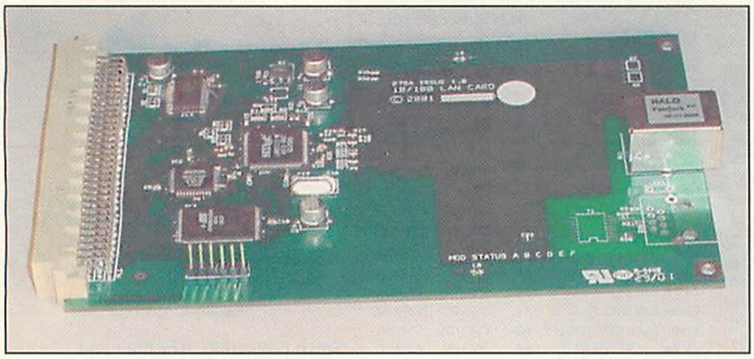
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Fast networking comes to *RISC OS*



Castle Technology have announced the availability of two new networking products.

The first, a 10/100Mbps network interface podule, allows a *RiscPC* or *A7000* to communicate over a Local Area Network (LAN) at speeds of up to 100Mbps.

This is a milestone in *RISC OS* networking, as previous network cards were only able to communicate at 1/10th of the speed - 10Mbps.

Whilst the card has an internal bus width of 32-bits, and operates at a maximum throughput of 100Mbps, it may not be possible to achieve these high theoretical transfers due to slower throughput of the EASI bus.

The second offering is a NIC version of the above, which fits into the *RiscPC* network interface slot, and is slightly cheaper (and doesn't take up valuable podule slots!)

The cards are compatible with *RISC OS 3.5* onwards, and provide the ability to flash the ROM on the card with later versions of software as they become available. What functionality Castle are planning remains to be seen, but possibilities such as the 802.x Quality of Service protocol support could be included in future.

Another interesting feature is that the software supports multiple cards, so in theory you could install several cards into a single machine, and communicate with several networks at once (*RiscPC* routers anyone?)

The podule is available via the usual retail outlets, and from Castle directly priced at £99+VAT for the podule version, and £94+VAT for the *RiscPC* NIC version. Contact Jack Lillingston at Castle Technology for further details.

Castle Technology Ltd
Ore Trading Estate
Woodbridge Road
Framlingham
Suffolk
IP13 9LL

Telephone: (+44) (0)1728 723200

www.castle.uk.co
sales@castle.uk.co

Cerilica announce official release of premier text effects package.



Cerilica have announced that their new design and effects software, *Insignia*, has been officially released and is now in stock.

Insignia is a new form of design application that will be of great interest to all designers, both for the Web and for traditional print work.

As reviewed in our last issue, *Insignia* allows you :

- Precise control over layout of text lines, arcs or stars
- Flexible colouring of background and text including radial, linear, rectangular and sprite fills
- Soft drop shadows may be fine-tuned to provide the perfect pseudo-elevation of text from the 'paper'
- Text profile effects including 'print halftoning', blur, vortex and pixelise
- Highly realistic After Effects add that final touch and include lens flare, snowfall and star spangles
- Save natively as Sprite, PNG (both with optional non-linear deep alpha channel) or JPEG.

Cerilica are offering customers free upgrades via their Web site. *Insignia* is priced at £39 in the UK and is available from Cerilica's overseas dealers.

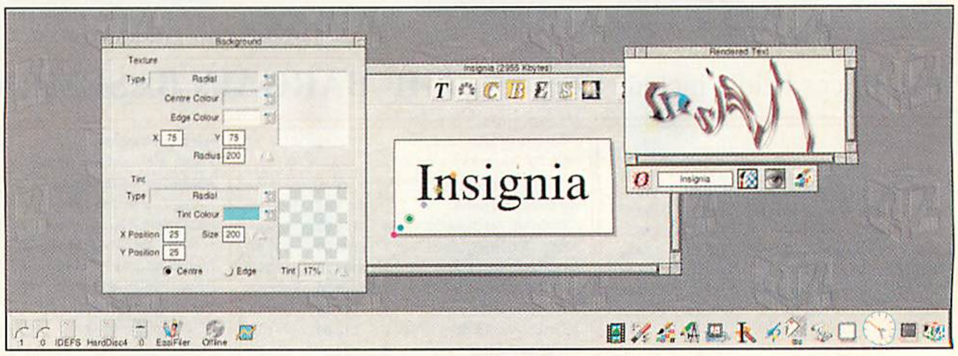
There is a demonstration of the software to download from **cerilica.com**.

For full details and example results, please visit the Cerilica Web site or see other contact details below.

Cerilica Limited
PO Box 40
Ross-on-Wye
HR9 7WH
England

Telephone: (UK) 0870 2411731

www.cerilica.com/insignia
cerilica@cerilica.com



New version of clipart management software released by RComp

RComp have released an upgrade to *EasyClip 2+* bringing the version to 2.20.

The latest version enhances the way the application exports clipart and photos for use in other applications.

EasyClip provides support for the Windows *MetaFile* (*WMF*) format, which allows the software to provide indexed thumbnails of *WMF* clipart CDs (for example) and convert these images to drawfiles on-the-fly as needed for use in *RISC OS* applications.

Another useful feature is the ability to save vector graphic images (ie. *Draw/WMF/Artworks*) as sprites - convenient for online work, where bitmap graphics are the norm.



The upgrade has been sent out to all registered customers – if you haven't yet received yours you should contact RComp.

Please note that this upgrade is only applicable to owners of *EasyClip 2+* (which included *WebThumbs* as well), launched in October.

The upgrade price from *EasyClip 2* to *EasyClip 2+* is £5 + VAT (£5.85) if you haven't already purchased it in October/Nov/Dec last year.

R-Comp
22 Robert Moffat
High Legh
Knutsford
Cheshire
WA16 6PS

Tel: (+44) (0)1925 755043

www.rcomp.co.uk
rcomp@rcomp.co.uk

Digital Arts declares *RISC OS* image-processing software as freeware

Following in the footsteps of Impression Junior and ArcElite, thanks to its authors and the investigative work of Michael Gerbracht, the *RISC OS* version of *DA's Picture* from Digital Arts had now been declared Freeware.

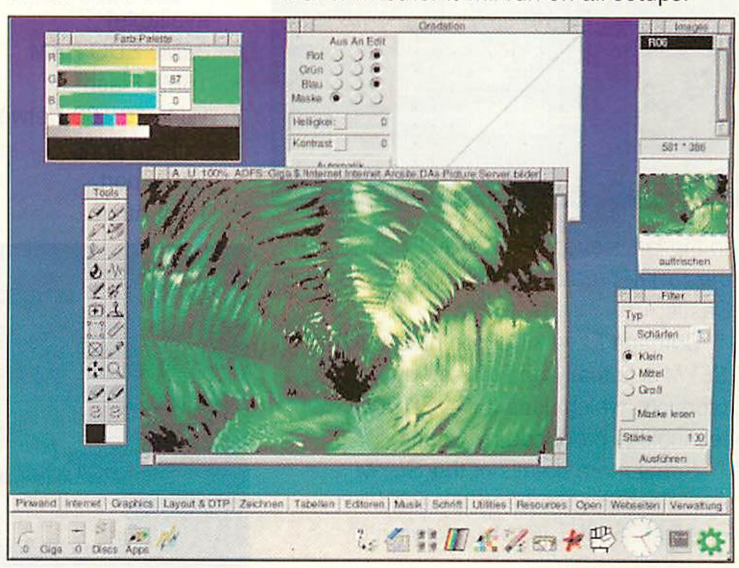
The program, originally released in 1994 as a commercial package, is a 24-bit image processor along the lines of *Photodesk*, although it has a distinctive non-*RISC OS* look and feel.

The software is reported to work on *RISC OS 3.5* and above, and can be downloaded from the Michael Gerbracht's Web site at **www.arcsite.de/hp/dapicture**

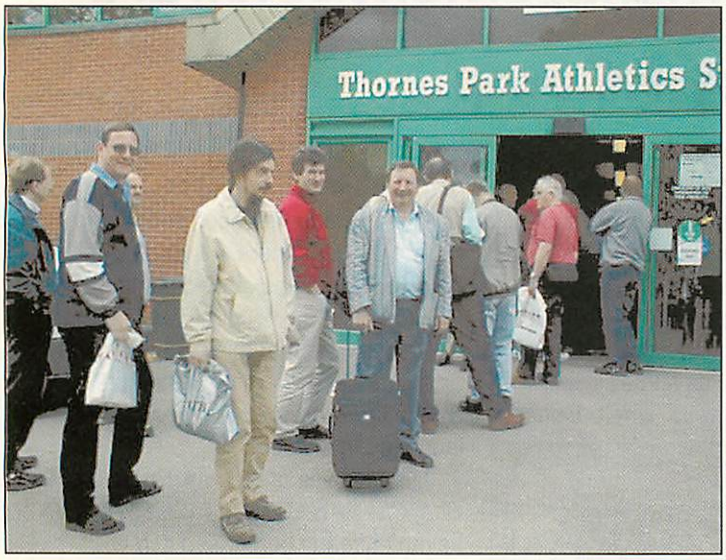
Although the binaries are freely available, the source code is not, and as such no development will be possible to add features or fix compatibility problems (such as running on *Viewfinder* or later versions of *RISC OS*). However, the software has tested OK on *RISC OS Select*.

This releases comes after Michael found that the Atari version of the software had been released as Freeware, and contacted the authors who gave their permission for the *RISC OS* version to be released in the same way.

At the moment, the software appears to run properly using the current *Viewfinder* and *Select*, although it is not known whether it will run on all setups.



Wakefield 2002 confirmed



The Wakefield RISCOS Computer Club (formerly Wakefield Acorn Computer User Group) have confirmed that this year's Wakefield show will be held on Saturday and Sunday 18th and 19th of May 2002.

The venue remains the same as previous years - Thornes Park Athletics Stadium which has good road and rail access and ample free car parking.

There was some uncertainty as to whether this years show would go ahead with the recent tragic death of Mike Wilson, one of the organisers.

However, show organiser Chris Hughes is confident that this years show will be as well run and popular with both exhibitors and visitors as ever, and has enlisted other members of the Wakefield group to assist with the organisation.

Many of the Wakefield show regular attractions will be returning like the charity stand (sponsored by the Wakefield RISC OS Computer Club), presentation theatre and games arcade (sponsored by RComp Interactive)

Also, for the first time, advance tickets may be purchased via credit or debit card from the show Web site or telephone; a service provided by Spellings.net, also one of the show sponsors.

Ticket prices for Wakefield 2002 are as follows :

Type	Advanced	On The Door
Adults/ Foundation/ OAP	£4	£5
Juniors (16-)	£2	£3
W/end ticket A/F/OAP	£6	£8
W/end ticket Juniors	£4	£6

The last date for advance ticket purchases is 10th May 2002.

For more information on the show, including up-to-the-minute news releases, ticket purchasing. venue and location information, realtime exhibitor listings and to sign up for e-mail alerts, visit the new show Web site at **www.wakefieldshow.org.uk/show/2002/** or e-mail **showinfo@wrocc.org.uk**

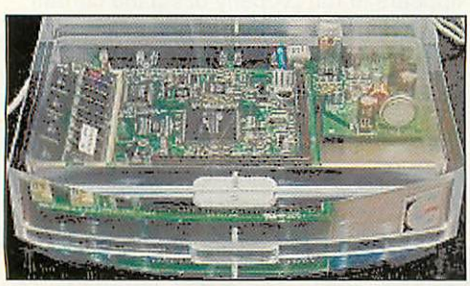
Businesses, organisations and individuals who wish to exhibit should visit the show's Exhibitor Web site at **exhibitor.wakefieldshow.org.uk** for stand information and pricing, and to reserve stands and manage their booking online.

Readers who do not have online capability or a credit/debit card may still take advantage of the reduced advance ticket prices by sending a cheque for the appropriate amount payable to "WACG Show" to:

Chris Hughes
95 Cumbrian Way
Lupset Park
Wakefield
WF2 8JT
United Kingdom

Customers are asked to ensure that they enclose their return address in order that tickets can be reliably and efficiently despatched.

Cumana issue more *SLYM* specifications



In the last issue, we incorrectly attributed the *SLYM* product as being released by Castle.

Cumana have kindly pointed out that *SLYM* is actually one of their own products, which uses the *NEURON* technology produced by Castle.

Some more details of the *SLYM* specification have been released :

- ARM 7500FE (64MHz *Neuron*[100] Board)
- 15" TFT Multimedia Screen (17" & 19" available)
- 32Mb EDO RAM
- 16Mb Flash
- RJ45 10/100 Network card
- 2x PS2 ports
- Serial port
- 16bit Audio
- Audio out jack (stereo 3.5 32Ohm)
- Parallel Port
- SVGA Port
- Reset Switch
- *RISC OS 4*
- *Oregano* Web Browser (Internet Ready)



Prices are as follows :

- *SLYM* Base unit only with Keyboard & Mouse £329 + VAT
- *SLYM* with 15" LCD Taxan 680 *CrystalVision* monitor £695 + VAT

Cumana also point out that the *NEURON* motherboard is not a shrunken *A7000+* board, but a completely new design.

We apologise for the errors made.

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Omega	£1179.00
Case and PSU upgrades	£Call
Expansion cards	£Call

RiscStation Computers

R7500 Lite	£598.00
R7500 Lite+	£656.75
R7500 NetWorx	£480.50
R7500 NetWorx HD	£539.30
R7500 Scorcher	£797.50
R7500 Scorcher Twindeck	£833.00
Osaris	£180.00
Osaris Plus pack	£210.00
Osaris Classroom pack	£857.50
Portable	£Call
Games pack (with a system)	£47.00

Risc PC Kinetic 300 series

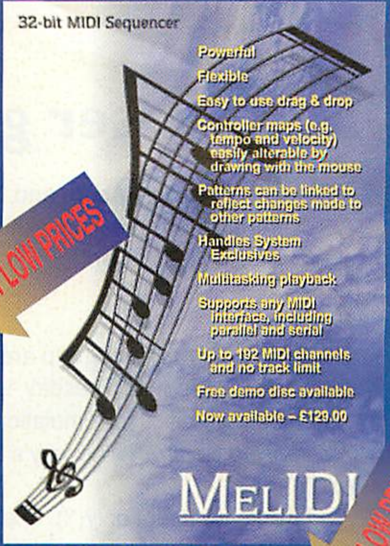
Kinetic Ek (32+4+2Mb, 10Gb HD, 48x CD)	£1105.00
Kinetic DVD (64+4+2Mb, 10Gb HD, DVD)	£1179.00
Kinetic (128+4+2Mb, 30Gb HD, CD R/W)	£1299.00
Kinetic Internet (128+8+2Mb, 30Gb, 48x, 56K)	£1409.00
Kinetic CD Writer (70Mb, 30Gb, CD R/W, 17")	£1505.00

Risc PC StrongARM series

Risc PC 8+0Mb, 2Gb HD	£890.00
Risc PC 16+0Mb, 4Gb HD	£948.00
Risc PC 16+2Mb, 4Gb HD, 48x CD	£1039.00
Risc PC 32+2Mb 8Gb, DVD CD	£1099.00
Web Wizard – 32+2Mb, 8Gb HD, CD, speakers, Internet pack with Oregano & 56K modem	£1179.00

Monitors

iiyama 1352 (15" FST)	£134.95
iiyama Vision Master 1401 (17" SF)	£210.85
iiyama Vision Master 1402 (17" FST)	£170.65
iiyama Vision Master 406 (17" SF)	£241.20
iiyama Vision Master Pro 1411 (17" NF)	£221.85
iiyama Vision Master Pro 410 (17" NF)	£295.60
iiyama Vision Master Pro 413 (17" HBNF)	£242.10
iiyama S900MT1 (19" FST)	£245.25
iiyama Vision Master 452 (19" FST)	£323.50
iiyama Vision Master Pro 451 (19" NF)	£397.50
iiyama Vision Master Pro 452 (19" NF)	£339.10
iiyama Vision Master Pro 453 (19" NF)	£476.95
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iiyama Pro-Lite 3813 (15" LCD)	£407.20
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iiyama Pro-Lite 3834 (15" LCD)	£655.90
iiiyama Pro-Lite 4311 (17" LCD)	£703.75
iiiyama Pro-Lite 4431 (17.4" LCD)	£1036.95
iiiyama Pro-Lite 4636 (18.1" LCD)	£979.60
iiyama Pro-Lite 4634 (18.1" LCD)	£1231.10
iiyama Pro-Lite 4831 (19" LCD)	£1763.50
Touchscreen monitors	£Call



NEW LOW PRICES

Memory Upgrades

Please call to check current prices.
Risc PC/A7000/RiscStation/Mico SIMMs:

16Mb FPM	£28.20
32Mb EDO (HC, works in Risc PCs)	£26.75
64Mb EDO (works in Risc PCs)	£39.00
128Mb EDO	£77.55
2Mb VRAM	£92.00

Music & Sound Section

Please call for other musical items
MIDI interfaces:

MIDI Max II internal 1x1x1	£93.95
Parallel Port 1x1x1 (back in stock)	£92.95
RiscStation MIDI drivers & cable	£17.95
RiscStation XG card & cable	£116.95
RiscStation XG card, cable & keyboard	£245.95
Sibelius 6	£99.95
Sibelius 7 Student	£319.95
Sibelius 7	£520.95
Sibelius for PC/Mac is also available	
Sound module serial driver	£37.95

Other Hardware

Mouse (Genius/STD Acorn-compatible)	£19.95
Mouse (PS/2 Logitech)	£14.99
PS2MouseMini adaptor for older machines	£18.95
Printers	£Call
Risc PC second slice (no PSU)	£95.00
RISC OS 4 (fitting available)	£109.95
RiscStation second serial port	£10.95
Scanners	£Call
StrongARM & RISC OS 3.7	£269.00
StrongARM & RISC OS 4	£299.00
ViewFinder card	£235.00

Other Software

Abuse	£20.00
Ankh	£23.00
CD Burn	£55.95
Chaos Engine	£19.50
DataPower 2	£165.00
Doom+ CDs	£30.00
Descent CDs	£25.00
Desktop Repton 3 CD	£15.95
DialUp & Messenger Pro	£54.95
EasiWriter Pro+	£139.95
Exodus	£22.00
FastSpool+	£17.50
Heroes of Might & Magic 2	£32.00
Kirsalis Collection Gold CD	£25.95
OHP 2	£37.95
Oregano CD	£57.50
Other Worlds CD	£17.95
Ovation Pro	£138.95
PC Pro 3	£70.00
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User group meetings

As usual the regional Acorn and *RISC OS* usergroups are meeting with a variety of topics being discussed.

Essex

The Essex Acorn User Group are meeting at 7:45pm on Tuesday 12th March 2002 to discuss "Emulation - *Archie*, *Red Squirrel*? The why's and wherefore's".

For entertainment only(?), one of their new members will be demonstrating "the *RISC OS* Desktop" on a PC. This will reveal how well or otherwise some well-known software behaves. *RISC OS 4* will not be present, but there is likely to be some discussion on the use of other ROM images.

Essex meetings are held in the Library in Witham, in the centre of Essex, just off the A12. For directions, see the club's Web site: **www.wattys.fsnet.co.uk/eaug.htm**

Surrey

The Surrey and Sussex Acorn Usergroup (SASAUG) is meeting on the 11th March with guest speaker Mike Williams of Akalat Publishing (Acorn Publisher) who will be exploring the use of *RISC OS* computers in the area of publishing. SASAUG meet at 8 pm the second Monday of every month at the Methodist Chuch hall, London Road, Horsham.

Their Web site **www.poppyfields.net/sasaug/** contains a location map.
The Bristol Areas RISC Usergrup (BARUG) have a visit from David Holden from APDL on 27th March.

They meet at 7.30pm on the last Wednesday of each month at the Brook Way Community Centre, Bradley Stoke, Bristol (just off the M5). For a map see their Web site at **www.snave.demon.co.uk/BARUG**

All usergroup information, meeting and contact details for groups world-wide can be found on **www.aaug.net**

AAUG say that their Web site will soon be up-to-date with the return of their Webmaster.

Digital cameras and RISC OS

Neil Farnham-Smith has contacted *Acorn User* following the last (relaunch) issue to correct concerns raised by Mike Cook within the *Hints & Tips* article last month. The good news is that Fuji cameras (reviewed in the January issue) can be interfaced with *RISC OS* machines using Surftec's digital camera connectivity software. We reproduce his letter below:

DigiFlash has been available since the *RISC OS 2000 Show*, where *CompactFlash* readers were launched. This product supports Kodak, Casio, Epson, Nikon and many other makes of digital camera.

At the *RISC OS 2001 Show* last September we added to the *DigiFlash* range with our *SmartMedia* reader completing *RISC OS* compatibility with digital cameras, allowing Olympus, Fuji etc to be used with *RISC OS* systems.

RISC OS users now – thanks to our product – have access to the vast majority of digital cameras available.

An example of this is the Internet Cameras Direct advert in the January issue which lists 54 cameras, five of which are SONY *Mavica* cameras that use standard DOS formatted floppy discs (thus work with *RISC OS*); two of the SONY cameras use *MemoryStick* which won't interface with *RISC OS* and I can only then spot a further two cameras which won't interface with our *DigiFlash* product as these cameras do not have the ability to use any form of media.

DigiFlash allows 45 of these cameras to be interfaced to *RISC OS* machines, and a further 5 have always worked as they just use standard floppies.

RISC OS therefore has impressive support for most makes and models of Digital Camera; in the afore-mentioned advert 94 percent of the cameras listed work with *RISC OS*!

Surftec Ltd
Burma Cottage
Glen Road
Beacon Hill
Hindhead
Surrey
GU26 6QE
United Kingdom

Tel: +44 (0)1428 608121

www.surftec.com
sales@surftec.com

In brief

Pace sits on 32bit RISC OS

It appears that recent developments at Pace have meant that many of the 32-bit *RISC OS* libraries they had developed are not going to be made available to RISCOS Ltd.

When Pace reorganised their Internet Appliance Division some months ago, work on their *RISC OS* Set Top Box (as appears in the Bush *Internet TV*) was scrapped and all *RISC OS* engineers moved onto their non-*RISC OS* projects.

As such, code developed for that project was never released by Pace into a product, or even passed onto RISCOS Ltd for release to *RISC OS* software developers.

Why Pace chose not to pass on this potentially valuable piece of development work we can only speculate on, but one possible reason could be approaches made by other parties to license *RISC OS* themselves, and Pace how now just decided to shut and bolt the door on any external development of *RISC OS*.

This is a setback for RISCOS Ltd who could have utilised development work already done by Pace in developing a 32-bit version of *RISC OS* to support future Intel *StrongARM* processors which don't have the 26-bit compatibility mode present that the current *RISC OS 4* requires.

Showing off

The next *RISC OS* show will be the *RISC OS Southwest 2002* show on Saturday 2nd March 2002 at the Webbington Hotel, Loxton, nr Axbridge. North Somerset

The usual array of *RISC OS* companies will be present including Castle, RiscStation, Cerilica, APDL, RISCOS Ltd, RComp and many others.

The show will be an ideal opportunity to see many of the products reported on



this month including *Insignia* from Cerilica and the new RiscStation portable.

Doors open at 10am until 4.30pm. Admission for adults is £2.50 and £1.50 for ARM Club & Foundation members. Children under 16 free if accompanied by adult.

For further information, visit the show Web site or e-mail the organisers.

www.argonet.co.uk/acornshow/sw02
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Installation kit £295 Installation £450
For use with standard PC's

Strong quarter for ARM

ARM Holdings Plc has produced a strong fourth quarter and year-end financial report, belying fears that the company would be hamstrung by the woes of wireless customers. However, a decline in royalty revenue and a slowdown in new license fees did suggest that ARM's problems may simply be lagging those of its main customers.

For the fourth quarter ended December 31, ARMs pre-tax profit rose 38% to 13.8m pounds from revenue 35% better at 40.2m pounds. For the full year, pre-tax profit rose 42% to 50.3m pounds, from revenue 45% better at 146.3m pounds.

For its own part, ARM described its 2001 performance as "successful" in "the context of a difficult economic environment and a severe downturn in the semiconductor industry." And on the face of things, business did seem to be good for a company which is widely perceived as the "dominant" supplier of chips to the mobile phone business, at a time when that business was suffering its first financial downturn in its short history.

In fact, only about 10% of ARM revenue is "directly" derived from wireless companies, according to executive VP of business development, Peter Magowan, although that figure is closer to 50% when the destination ARM semiconductor manufacturing customers' products are taken into account.

The worry for ARM from its latest figures, is that whereas it increased chip partner licensees from 50 to 77 over the course of the year, it lost some established licensees, and of its 27 new licenses, 18 were "single-use" contracts. These are not the lucrative open-ended deals that are likely one day to generate substantial royalties, although ARM said it did sign nine of these more "conventional" licenses in the period.

ARM has estimated in the past that it takes anything from two to three years for a license to begin generating significant royalties, which is one of the reasons why the company is known to be a "high license, low-royalty" SIP vendor.

In recent times, as major customers such as Intel have brought ARM-based products to market, there has been a steady increase in royalties as a proportion of business, which continued in the fourth quarter that saw royalties rise 7% to 6.4m pounds, or 17% of revenue. However, year-on-year this represented a 16% decline, and with ARM reporting royalties a quarter in arrears, there could still be further sting in the tail of 2001 to come.

Register.com snaps up Virtual Internet

Register.com Inc is to buy struggling rival Virtual Internet Plc for £11.99m in order to get a foothold into the UK and European markets, the companies announced.

The all-cash deal has been unanimously accepted by VI's board and the 53.2% of the shares they control, but needs approval by 90% of outstanding shares to close. The purchase price puts a premium of 35.7% on VI's January 31 closing share price.

Both companies are domain name registrars, and have previously worked as joint owners of RegistryPro LLC, the company that hopes to launch the registry of .pro domain names - aimed at "professionals" such as lawyers and accountants.

That particular joint venture has suffered a number of unspecified contractual hiccups, and will be the last of the seven new domain registries approved by industry regulators fourteen months ago to go live following .BIZ, .NAME and .INFO.

Register.com is the second largest registrar in the world, with over three million domain names registered with it. VI was the 77th largest, as of December 31, with just over 2,000 names on its books.

Recently, the consolidation of the domain name registration market has exclusively involved Register.com's arch-rival VeriSign Inc buying up floundering registrars to add to its already substantial market share. The market is crowded, with about 100 registrars active and many more accredited to practice.

In brief

Young Engineers Challenge

The interest and excitement generated by the *Robot Wars* series of programmes has led many schools and young people to ask, "How can we get involved." Problems of cost and safety have been addressed, and now Young Engineers have teamed up with BTexact Technologies and Rex Garrod to devise a national challenge competition for school students.

Open to individuals and teams of up to four, there will be two age categories at the regional heats, with the finals scheduled for the *Robot Show* at Olympia in early July. Rex's robot *Cassius*, and all the TV robots have incredibly complex control and operating systems, are very big and built from aerospace high tech materials beyond the scope and pockets of young people.

Rex has therefore devised a challenge that will encourage recycling, but the use of titanium and Kevlar and similar materials is outlawed! Aluminium and MDF are in, and don't forget that controller you can rescue from the old remote control car that no longer works. Much cheaper than multi channel radio control equipment.

Oh, and the drive motors must be recycled windscreen wiper motors that are cheap and easy to obtain.

In Rex's own words, "Throwing money at the project is not the answer, good design, ingenuity and innovation will be the key to success.

Some of you will have your own ideas, you may even have already built a robot, but for those who haven't and don't know where to start, I have written a little handbook.

It explains how to use windscreen motors and how to fix wheels to them, how to adapt bicycle pumps that will serve as pneumatic rams. It also covers helpful tips on radio control, general robot building and most importantly – SAFETY – and that will ensure everyone has a great time."

The challenge is open to individuals and teams who register with Young Engineers, plus entry is free. Interested young people can set up on their own or be members of other organisations such as the Guides or Scouts or any youth group.

Young Engineers has a network of over 1450 clubs that operate in schools and colleges throughout the UK, and their aim is to promote engineering.

So why not get your technology or science teacher to start a club?

For further details see the Young Engineers website **www.youngeng.org**

Neil Spellings
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Take the high path

How many blacksmiths do you know that use *RISC OS* every day as an essential tool in engineering production? How many of these skilled engineers are also *RISC OS* programmers?

Chris Bell combines his engineering skills with his dedication to *RISC OS* to run Highpath Engineering with colleague



Checking those processor cycles

Dave Wrath-Sharman. Blacksmithy and precision milling are just some of their many skills.

These two multi-talented engineers operate from two small workshops in rural Wales, and made media news in the mid '90s with their innovative *BROX* quadricycle. Dave's pioneering work on off-road cycles pre-dates the emergence of the mountain bike, and he's an authority on hub-brakes and recumbent cycle design.

Chris also uses a bicycle for everyday transport and has a passion for appropriate technology; hence his appreciation of the intuitive nature of the *RISC OS* graphic user interface. Chris uses *RISC OS* for everything from word processing and engineering drawing *through to small* part manufacture using his own ProCAM for process control.

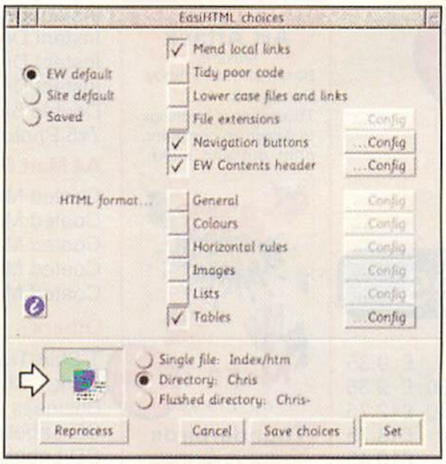
Chris wrote the *ProCAM* software to convert drawings using *ProCAD+* by David Snell (**www.dsnell.zynet.co.uk/CADindex.html**) into toolpaths for milling machine control and engraving.

ProCAM is a free download from the Highpath Web site at **www.highpath.net/comput_/ftp/procam.zip**

EasiHTML is another Chris Bell software production for a different but related area of required precision; to ease the production of Web pages. Offered as Shareware, *EasiHTML* allows editing of HTML files without the need to understand HTML.

With *EasiHTML* you can change font sizes, table layouts, colours, rules, page titles and many other attributes both in single HTML files and throughout whole sites. Particularly useful is its facility to mend broken local links, tidy poor code and add pictorial navigation icons to the top and/or bottom of the page. A selection of arrow button designs is supplied within the program, and you can add your own designs to the collection.

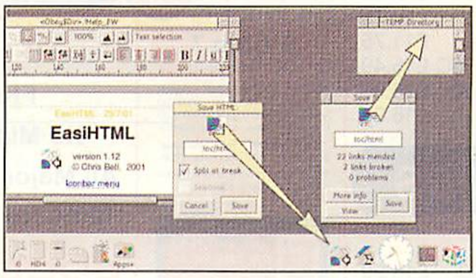
EasiHTML includes features to edit HTML files created by Icon Technology's *EasiWriter* and *TechWriter*. Some unexpected results can occur if the *EasiWriter* default text choices are altered, and *EasiHTML* can sort these out, as well as replace the original named



Choices, choices

navigation links with graphic buttons. Chris suggests that users who create HTML files with *EasiWriter* always save via *EasiHTML* rather than directly.

The *EasiHTML* help file is a good example of its own output, and Chris offers good advice on page formatting for print-out and Web view compatibility



Drag it here, then drag it there

when using *EasiWriter*. The shareware registration fee of £6 or 10 Euros due after one month's tryout seems very reasonable.

EasiHTML by Chris Bell
www.highpath.net/comput.htm

In brief

Watching Brief

NetWatch automatically checks specified Web sites for changes in content. The author, Maarten Bezemer, a student at the University of Twente in the Netherlands, spends almost every free minute creating programs for *RISC OS*.Type-in or drag a URL-typed file to the *NetWatch* list window, set the checking frequency and *NetWatch* takes over. When you're online, each page to be monitored is fetched and a checksum is calculated and stored. If the checksum has changed since last time, *NetWatch* lets you know the page has been updated. FTP URLs can be specified, and pages with user name and password protection can be included for monitoring.

home.student.utwente.nl/m.m.bezemer/netwatchuk.html

ClosedWorld Opened

The cost and availability of Broadband ADSL and Cable modem services is highly volatile, so any information to help us decide whether we can yet afford an always-on connection is welcome. The BTO UserGroup FAQ of the previously closed support newsgroups for BT OpenWorld is now available online, together with a useful Web-News Gateway that allows anyone to browse these private groups. The FAQ combines BTO-specific user material together with a wealth of other Broadband information, covering Firewalls and security, Connection sharing, Hosting servers, alternative Routers and ADSL modems, and more.

www.btofaq.net

Simon's Search

As a break from his quest for photons from the young universe, Dr. Simon Melhuish develops software for *RISC OS*. Projects to be found on his new dot-info domain Web site include an application to drive the 1-wire weather station, IIC bus programs and other utilities. A recent project is *LanMoc* which monitors and controls a 3-COM LAN modem; an ISDN Terminal Adaptor and router with built-in Ethernet Hub. Simon's *LanMoc* provides *RISC OS* with similar facilities to the *Windows* manager supplied with the modem. Simon suggests a future version of *LanMoc* could update a dynamic DNS service, allowing users' machines or servers with dynamically-assigned IP addresses to become accessible from the Internet by name.

melhuish.info/simon/projects/index.html#lanmoc

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Web graphics: ArtWorks Master Edition

In the last issue, it was concluded that *Vantage* is an excellent buy, if you can afford it. It is easy to use and provides absolutely superb output. However, *Vantage* might be a great piece of software, but as long as there is a MW Software, there will always be competition to *Vantage*.

Computer Concepts wrote *ArtWorks* so that third party authors could add new functions and features via add-on modules. Once added, these modules integrate with the main program and act as part of it.

MW Software has written countless modules for *ArtWorks*, as well as bug-fixing parts of the main software. The company now supply a version of *ArtWorks* called *ArtWorks Master Edition*, which includes all of the updates and new modules. It is these modules which keep *ArtWorks* a viable, modern application. For any serious work, you really do need these modules and fixes, and it is the *Master Edition* that we put to the test this month.

As you may remember, last issue I created a logo and a small number of Web graphics for an imagined computer network company. This issue, I shall attempt to recreate the same graphics using *ArtWorks Master Edition* (which shall be referred to simply as *ArtWorks* for the rest of this article).

As we cast our eyes back over last issue, we can see that the first thing required is the star shape. Here, *Vantage* scores a point: *ArtWorks* has no preset star-shape tool. However, there are two ways around this that spring immediately to mind. The first way is to manually draw a star shape using the line tool and the grid. That's fine, but takes a lot of time for a simple requirement. The other way is to employ the use of another program.

It is well versed that the modular use of programs under *RISC OS* is one of it's many strengths. The widespread use of the *Draw* format is another. To get the star shape needed, we can take advantage of both of these strengths and use *DrawLots* (a free download from **www.argonet.co.uk/users/miskin/Draw/main.html**), a handy little program that creates a wide variety of shapes and outputs them in *Draw* format.

Creating the star shape is a matter of a couple of clicks of the mouse and we soon have the basic building blocks in the *ArtWorks* document.

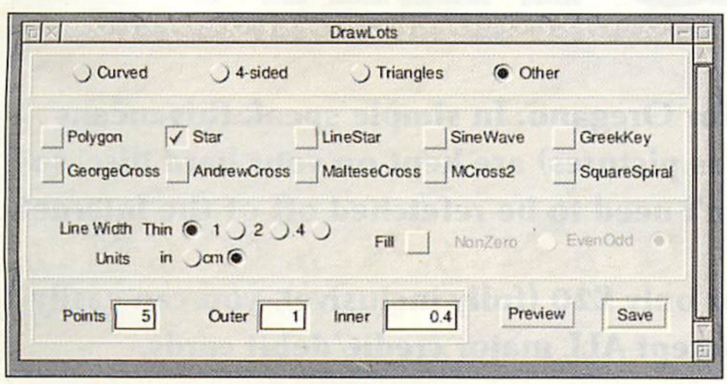
Now we come to the difficult bit. We need to colour the stars and apply transparency. *ArtWorks* does not come with real transparency facilities, but it is actually possible to fake the effect of transparency if one employs time, skill and care.

I knew it was possible to create the transparency effect I wanted in *ArtWorks*, but I didn't know how to do so. A quick e-mail to MW Software soon provided me with instructions and indeed an example file, bearing the results. Thanks go to Martin Wuerthner for providing the following solution:

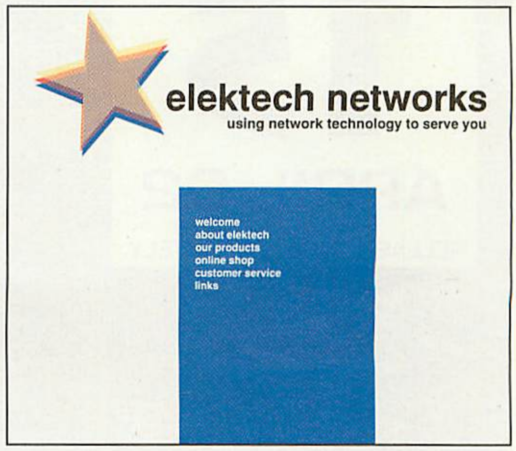
"You need the intersections of each pair of shapes and the intersection of the three of them. These are easy to create:

Let us call the three original shapes *Shape1*, *Shape2* and *Shape3* and their colours *Colour1*, *Colour2* and *Colour3*.

Select *Shape1* and *Shape2*, then press Ctrl+K (clone), then press Ctrl+W (intersect all). This creates an intersection object we shall call *Shape12*. Create a new colour called *Colour12* with the same value as *Colour1* and apply it to *Shape12*. Move *Shape12* just above *Shape2*. Then do the same for *Shape2* with *Shape3* (resulting in *Shape23* with *Colour23* just above *Shape3*) and for *Shape1* with *Shape3* (resulting in *Shape13* with *Colour13* just above *Shape3*). Finally, create *Shape123*, the intersection of the three shapes (select the three of them, clone them and press Ctrl+W) with *Colour123* (which is the same as *Colour1*).



Rosemary Miskin's DrawLots in action



The resulting ArtWorks file with transparency

The cloning step, by the way, is necessary because Intersect replaces the selected objects with the intersection.

OK, now all we need to do is to colour the objects accordingly. This can be done using *Phantasm*. Export the colour table from *ArtWorks* to *Phantasm*, set it to ignore all colours except *Colour12*, then apply a colour shift towards *Colour2*. As *Colour12* was originally *Colour1*, this is the correct value for the intersection. Then, in the same way, shift *Colour23* towards *Colour3* and *Colour13* towards *Colour3*. Then, shift *Colour123* towards *Colour2* and finally towards *Colour3*. Put the colour table back into *ArtWorks*."

Once you have created your artwork, you can output as a Sprite or a GIF. IN many cases, GIFs will be fine for Internet use but if you require more than 256 colours, you should save out as a Sprite and then use a utility such as John Kortink's *Translatr* to convert to PNG or JPEG (PNG is often better).

In conclusion

ArtWorks Master Edition provides an advanced but cost-effective vector graphics solution. It's bitmap output is fine for Web use, although not as razor sharp as *Vantage*. The lack of a transparency tool can make some work complicated and time-consuming, but the arrival of *Crystal* in the near future will provide real transparency in *ArtWorks*.

ArtWorks is an excellent vector package, ideal for the Web. *Crystal* will further enhance its standing.

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RiscStation challenge the Odyssey of Castle

Last month we reviewed Castle Technology's *A7000+ Odyssey Internet*, which passed our review with flying colours. This month we have a feature-packed entry from RiscStation, which we will test under the same pretences as last month's entry.

To remind you; we've asked the manufacturers to each submit a 56Mhz machine, specifically built with the home Internet user in mind. There are no price limits or minimum features, except of course that the mahine must come with the appropriate hardware and software to get on the Internet.

However, as with all computers, there should be a balance between features and price. We've left the manufacturers free to make their own decisions on just how to tip that balance.

Some readers may have questioned the absence of a price in last month's review. How can you review something and not mention the price? Fear not, dear reader, there is sound reasoning behnd this; because we are reviewing one machine each issue in this series, it would be unfair to comment on price because of the volatile nature of the computer industry. Prices can go up and down a great deal over the course of just a day, so over several weeks the reviews could well become unfair. With this in mind, there will be a short recap on the pros and cons of each machine and a comparison of the prices as they stand at that time, ensuring that you get accurate representation of the prices.

With the formalities out of the way, it's time to put the RiscStation to the test. Have RiscStation created a desirable and viable Internet machine? Will it stand up to the might of Castle Technology? Read on to find out...

The RiscStation machine arrived in a much smaller box than the *A7000+ Odyssey Internet* had done. Opening up the box revealed a well-packed machine, but alas some items were missing. A quick call to RiscStation and a few days later another box arrived with the 15" LCD, optical mouse, Internet pack and user guide.

I was not impressed that these items were forgotten when sending out the original machine. After all, they are essential to the running of the computer. It has to be noted, though, that RiscStation did rectify the situation and got the missing items to me very quickly.

Both boxes were well packed, with all items neatly arranged and with plenty of packing material to protect expensive items from damage during transit. RiscStation opted to use shredded magazines (made partly from PC magazines, so they do have a use after all!) and made sure both boxes were filled with them.

This provides good protection and stops items moving about and being knocked as they wing their way across the kingdom (or indeed, overseas). Top marks to RiscStation, then, for their good and responsible packing habits.

The most obvious difference between an Acorn machine and a RiscStation machine is the case. Whereas Castle continue to use the propriety Acorn cases, RiscStation use a standard mini ATX PC case. Whereas the RiscStation case lacks the individuality and style of the *A7000+* case, the RiscStation does have the very distinct advantage of allowing the user to have a CD-RW and CD-ROM drive (or, as with this machine, a Zip drive) in the machine.

This is an advantage over the *RiscPC* case, too - no expensive slices when you want to add another drive.

Setting up the computer was a doddle (with one exception, which I shall discuss a little later).

RiscStation supply a comprehensive printed manual, which is aimed at those new to *RISC OS*. It is of the same high quality as the Acorn manual which Castle supply, but since it is new, is competely up-to-date. Castle really should take note and upate their manual to be *RISC OS 4*-orientated and remove references to Acorn Computers Ltd.

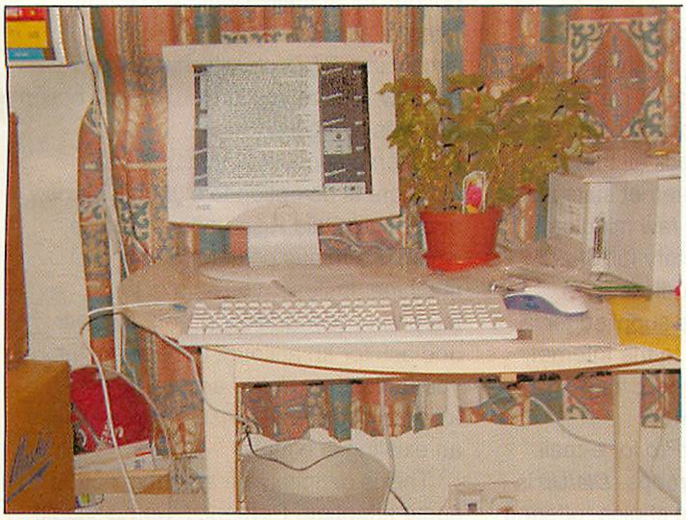
A new user to *RISC OS* or computing in general should have no problems if they follow the RiscStation manual.

The Castle machine worked perfectly after setting up. It booted into the desktop rather quickly as well. I am pleased to report that the RiscStation also did not disappoint here, although it took rather much longer to boot, with it taking 27 seconds from power-on to a fully working desktop.

Like the Castle machine, restarting this machine takes less time than booting from cold (power-on). At 22 seconds, this makes the RiscStation a slower starter than the *A7000+ Odyssey Internet*. Still, we're talking *RISC OS* starting times here and a few seconds hardly matters.

I mentioned that there was one exception to the general ease in setting up the computer. This was the LCD display.

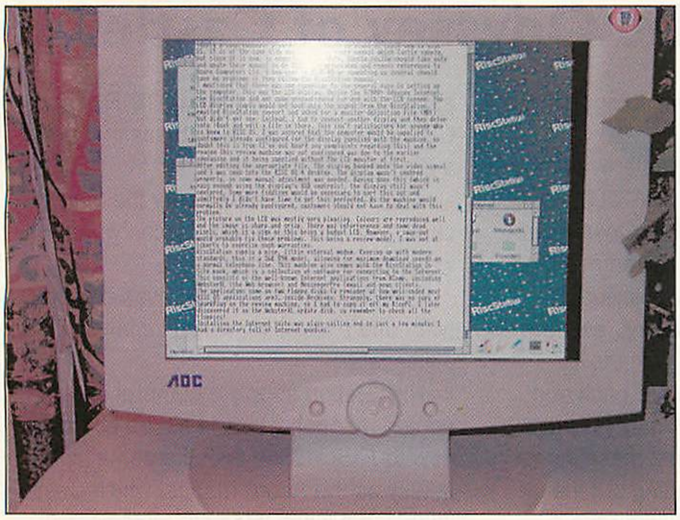
Unlike the *A7000+ Odyssey Internet*, the RiscStation did not come



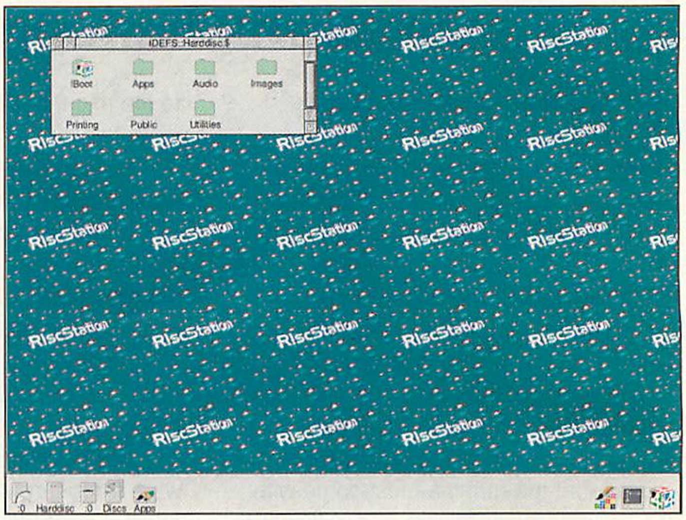
All setup and running



RiscStation use standard ATX cases



Problems with the LCD display



The RiscStation desktop after a fresh bootup

preconfigured for use with the LCD screen. The LCD display simply would not hook onto the signal from the RiscStation. I emailed RiscStation support and asked for a monitor definition file (MDF) but didn't get one.

Instead, I had to connect another display and then delve into *!Boot* and edit a file in there. This isn't satisfactory for anyone who is knew to *RISC OS*.

I was assured that the computer would be supplied to customers already configured for the display supplied with the machine.

No doubt this is true (I've not heard any complaints suggesting otherwise) and the reason this review machine was not configured was due to the earlier confusion and it being supplied without the LCD monitor at first.

After editing the appropriate file, the display hooked onto the video signal and I was soon into the *RISC OS 4* desktop. The display wasn't centred properly, so some manual adjustment was needed.

Having done this (which is easy enough using the display's OSD controls), the display still wasn't centered. Some more fiddling would be necessary to sort this out and admittedly I didn't have time to get this perfected.

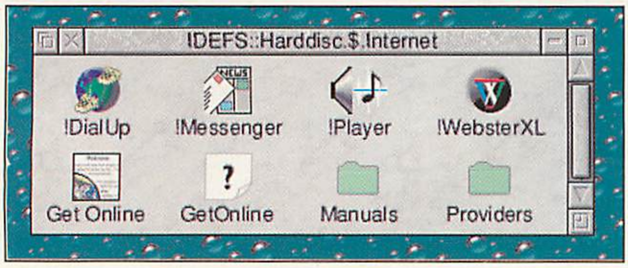
As the machine would normally be already configured, customers should not have to deal with this problem. The picture on the LCD was mostly very pleasing. Colours were reproduced well and the image was sharp and crisp.

There was interference and some dead pixels, which is a sign of this being a budget LCD. However, a swap-out would probably fix these problems. This being a review model, I was not at liberty to exercise such warranties.

RiscStation supply a nice, little external modem. Keeping up with modern standards, this is a 56K V90 model, allowing for maximum download speeds on a normal telephone line. This machine also comes with the RiscStation *In Site* pack, which is a collection of software from RComp for connecting to the Internet.

This consists of the well-known Internet applications from RComp, including *WebsterXL* (the Web browser) and *MessengerPro* (e-mail and news client). The applicatons come on two floppy disks (a reminder of how well coded most *RISC OS* applications are), inside Archives.

Strangely, there was no copy of *SparkPlug* on the review machine, so I had to copy it off my *RiscPC*. I later discovered it on the *WebsterXL* update disk, so remember to check all the floppies! Installing the Internet suite was plain-sailing and in just a few minutes I had a directory full of Internet goodies.



Goodies in the Internet directory

DialUp is supplied for connecting to the Internet, with *WebsterXL* for browsing and *MessengerPro* for e-mail and newsgroups. *DialUp* is an excellent choice, offering ease-of-use and compatibility with the standard .ins setup file from the *Windows* world.

MessengerPro is a fantastic e-mail and newsgroup client and is my personal favourite, so top marks for supplying this.

WebsterXL is, in my experience, a mixed beast; sometimes excellent, sometimes it fails miserably and it can often be a little slow. Still, we'll find out how it fared soon...

Having setup the computer, I was now ready to actually set about getting online. Now the Castle machine offered two



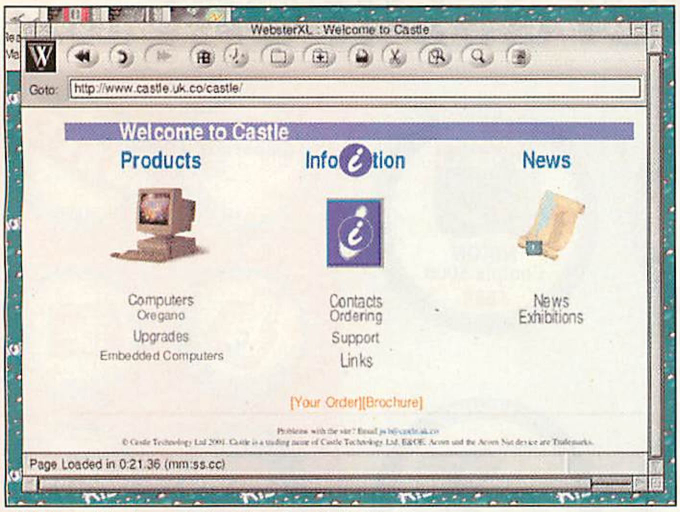
MessengerPro is easy to setup

options for actually signing up for an Internet account: option one was to simply use BT Click, which doesn't actually require you to sign up; and option two was to signup (online) for a Freeserve account of your choice.

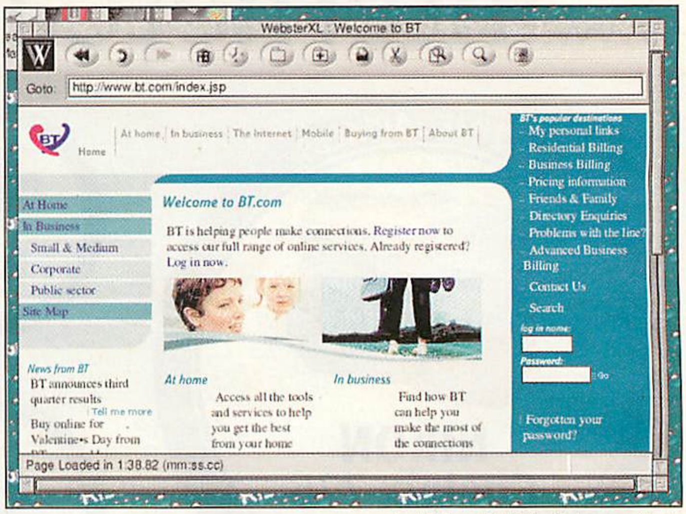
There is no option to signup for a new acount with this RiscStation machine, which is a minus point for an Internet machine. Instead, you'll have to telephone RiscStation or your supplier and ask for an account to be setup for you (unless you have access to the Internet somewhere else or already have an existing account).

This is definitely an area that needs some attention. Perhaps RComp should consider adding support for signing up to


INDEPENDENT EXPERT ADVICE
www.InternetCamerasDirect.co.uk
2.2 MEGAPIXELS
NIKON
Coolpix 775
£270
3.3 MEGAPIXELS
KONICA
KD300Z
£388
5 MEGAPIXELS
NIKON
Coolpix 5000
£888
1.3 MEGAPIXELS
FUJI
Finepix 1300
£148
1.3 MEGAPIXELS
FUJI
Finepix 1400
£168
Impartial ADVICE
SALE ALWAYS ON
£ ON-LINE ORDERING
icd² SHARE & PRINT
WHICH? WEB TRADER
A to Z ACCESSORIES
2.1 MEGAPIXELS
CASIO
QV2900
£388
NEW LOW PRICE WAS £388 NOW £318
4.3 MEGAPIXELS
FUJI
Finepix 4700
£348
2.1 MEGAPIXELS
FUJI
Finepix 2600
£238
2 MEGAPIXELS
FUJI
Finepix 2800
£318
2.0 MEGAPIXELS
FUJI
Finepix 30i
£288
4.3 MEGAPIXELS
FUJI
Finepix 4800
£378
3.3 MEGAPIXELS
FUJI
Finepix 6800
£498
3.3 MEGAPIXELS
FUJI
Finepix 6900
£628
5.2 MEGAPIXELS
MINOLTA
Dimage 7
£718
EVERY CUSTOMER GETS £2 OF DIGITAL PRINTING FREE
EXTENDED WARRANTIES AVAILABLE FROM £20
FREE QBEO PHOTOGENETICS 2.0 WORTH £24.99 WITH EVERY PURCHASE
WIN 100 DIGITAL PRINTS IN OUR WEEKLY PRIZE DRAW- VISIT WEB TO REGISTER
£15 OF DIGITAL PRINTS WITH ALL ORDERS OVER £500
COMPARE & CONTRAST DIGITAL CAMERA SPECIFICATIONS SIDE BY SIDE
FREE MINI TRIPOD WORTH £8 WITH EVERY CAMERA
icd²
share & print
NO LENGTHY DOWNLOADS TO GET STARTED
1 Upload digital images to on-line album.
2 Store, share or order prints.
3 Prints delivered direct to your door.
FREE 50mb on line photo album storage
FREE registration
FREE £15 worth of prints with every purchase over £500
FOR ALL THESE GREAT DEALS AND MORE VISIT OUR WEBSITE
www.InternetCamerasDirect.co.uk
call 0870 745 1036
or fax 01484 845 947 or e-mail sales@internetcamerasdirect.co.uk
SWITCH
VISA
MasterCard
*Secure on-line ordering at internetcamerasdirect.co.uk we use a 128 bit model to encrypt your credit card details within the browser on your PC. The details are not decrypted until downloaded onto our server. This is the most secure model. We use an encryption standard called Diffie-Hellman, which is a public key algorithm for key exchange, and is widely used on the internet. InternetCamerasDirect.co.uk, 4 Peel Street, Marsden, Huddersfield HD7 6BW



WebsterXL doesn't like the Castle Web site...



...but it is a British Telecom fan!

a selection of Internet Service Providers via *DialUp*.

In order to configure *DialUp* on the RiscStation machine to get online, I exported a script for my ISP from *DialUp* (which I have on my *RiscPC*) and popped it on a floppy disk. When you first load *DialUp* you are automatically taken though a setup process, which gives you the option to drop a script onto a window that will set everything up automatically for you.

I dropped my exported *DialUp* script, entered my username and password and the machine was configured for actually accessing the Internet.

The final step in setting everything up was to setup *MessengerPro*. This really is a piece of cake – quite suprising for such an advanced piece of software. A few clicks, enter some details and you will be setup for e-mail and newsgroup participation in less than a minute (depending on how complicated you decide to make your setup, of course).

Whilst I am telling you about *MessengerPro*, I should admit that I did not put this particular piece of software through it's paces. Why? Because I already use it on a daily (nay, hourly!) basis and know it to be excellent. Is it better than *Pluto*? I couldn't say, as I don't use *Pluto* at all, but what I can say is that *MessengerPro* is a brilliant piece of software and an excellent inclusion with this machine. Ticks for RiscStation and one-up over Castle for this.

With the software installed and ready for action, I was finally ready to connect to the Internet. With *DialUp* loaded, this is achieved by clicking on the *DialUp* icon on the iconbar.

The modem sprang into life and connected to my ISP without any problems. Incidentally, just as with the Castle machine, I did not install any drivers for the modem, even though it is an external device. Now that is true plug-and-play. Maybe someone should show the concept to Microsoft...

Once connected successfully, e-mail is automatically checked. This feature can be turned off, but I imagine most users will want to leave it, as checking e-mail is usually one of the main reasons of going online in the first place.

We know that this computer comes very well equiped for e-mail and newsgroup participation, but what about browsing the Web?

Oregano is well-regarded as the best *RISC OS* browser, so how does *WebsterXL* compare?

To put this to the test, I visited the same sites as last month. The timings are shown below:

castle.uk.co:	2min 20 secs
bt.com:	1min 43secs
news.bbc.co.uk:	1min 45secs

There are no two ways about this: compared to the results from the Castle machine, these times are very poor.

It is essential to note that this is actually not down to the hardware, but to the software. Quite simply, *WebsterXL* is a slow browser. It can actually be *very* slow indeed.

A lot of this slowness can be attributed to the fact that a lot of it is written in *BASIC*. *WebsterXL 2*, which it is rumoured is well under development at the moment, will be written in *C* and thus be a lot faster. Some very nice features are also rumoured to be on the way, too, so things could suddenly get a whole lot better for *WebsterXL*.

At the moment, though, *WebsterXL* does not stand up to *Oregano*. It fails on more sites than *Oregano*, the Castle Web site being a case in point (see the screenshot for evidence). The Castle Web site works in *Oregano*, *Internet Explorer* and *Netscape Navigator* so unfortunately it would seem that *WebsterXL* is at fault here.

Conclusion

The RiscStation feels more resposive than the *A7000+* and many operations are faster due to the improved speed of the motherboard.

The initial problems were a shame, but RiscStation redeemed themselves with quick support.

MessengerPro and *DialUp* are excellent inclusions, but *Oregano* would have been a better choice for browsing.

In all, an excellent machine with some great software. Pay a little extra for *Oregano* and the RiscStation is a winner.

RiscStation R7500 Internet

56MHz ARM7500FE
RISC OS 4.03
9GIG harddrive
64Meg RAM
Keyboard
Optical Mouse
In Site Internet Pack (modem & software)

RiscStation Ltd
168 Elliott Street
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M29 8DS
United Kingdom

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Michael Stubbs
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RiscStation
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The essential graphics upgrade?

There is little doubt in most people's minds that one of the areas where a standard *RiscPC* is lacking is graphics capabilities. Currently, a top-specification machine comes with just 2Mb of video memory, with the best all-round screen mode available being a resolution of 1024 x 768 with 32,000 colours with a refresh rate of 70Hz. Increase the resolution and your colours will be reduced to 256 (or even less at some resolutions). Increase the colours and the resolution and refresh rate will drop.

Users of Mac or PC systems built within the last four years can expect to have at least twice as much video memory as a *RiscPC*. Buy a new Mac or PC nowadays and it's certainly not uncommon for your computer to arrive with 32Mb or even 64Mb of video memory. This leaves current *RISC OS* systems trailing behind current standards.

Enter Windfall Engineering with *Viewfinder*, an AGP graphics solution for the *RiscPC* and *A7000* range of computers. *Viewfinder* consists of a PC AGP graphics card, some custom hardware to interface with the *RiscPC* hardware and a driver to make it work with *RISC OS*.

The first version of *Viewfinder* used an ATi *Xpert 98* graphics card, which shipped with 8Mb of video memory. This was a huge improvement over the *RiscPC*, but still denied us those really high-specification screen modes that PC and Mac users have readily available.

Windfall Engineering have now released a new version of Viewfinder which utilises the ATi *Xpert 2000* graphics card, which ships with 32Mb of video memory. This card is powerful enough to drive the latest 22" monitors to their limits. So what is it like in use?

For the purposes of this review, Castle Technology kindly supplied a 22" iiyama flatscreen CRT monitor - the *Vision Master Pro512*.

Installation

Viewfinder arrived with just a small slip of paper, telling me to install the product in my *RiscPC* in podule slot 1. After this, you start your machine with V held down (disables Viewfinder), open a task window and type `ViewFinderGuide`. A comprehensive user guide then appears in the task window.

Having had too much experience with setting up AGP cards on *Windows* machines, these instructions seemed far too simple. Surely there should be some drivers to install? What about all the fun of driver clashes etc? This didn't seem right.

Off came the appropriate backplane, in went *Viewfinder* into podule slot 1 and the machine was started in the manner requested. A brief read of the instructions revealed that all one has to do is ensure that the default standard (not *Viewfinder*) screenmode uses hundreds of colours. Those with *Kinetic* cards must type in a short command in the task window at this point, to ensure *Viewfinder* works properly with the *Kinetic*. After this, it's time to restart the machine.

My machine restarted without problems and a few seconds later I was presented with my usual resolution desktop, only this time coming from the *Viewfinder* output, not the usual *RiscPC* connection.

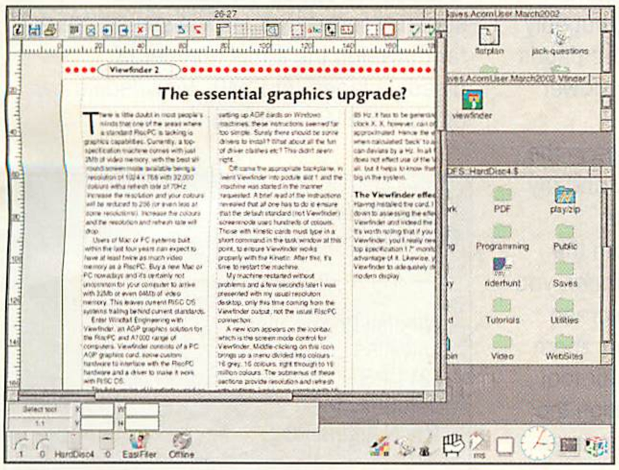
A new icon appears on the iconbar, which is the screen mode control for *Viewfinder*. Middle-clicking on this icon brings up a menu divided into colours - 16 grey, 16 colours, right through to 16 million colours. The submenus of these sections provide resolution and refresh rate settings. I was soon running with 16 million colours at a resolution of 1600 x 1280. On the 22" review monitor, this looked absolutely splendid. Plus, it really was as simple as the instructions imply. Top marks to Windfall Engineering for easy installation.

Custom rates

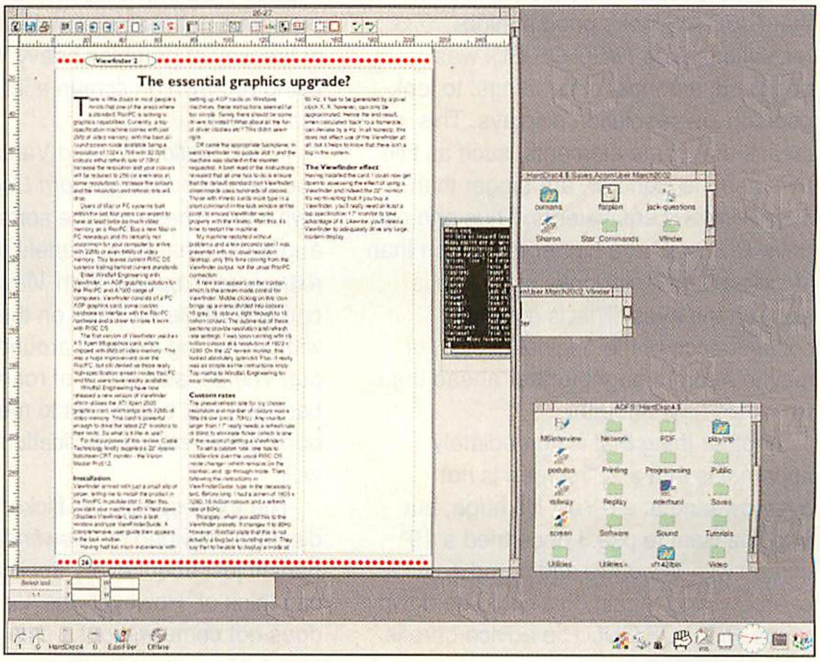
The preset refresh rate for my chosen resolution and number of colours was a little bit low (circa. 70Hz). Any monitor larger than 17" really needs a refresh rate of 85Hz to eliminate flicker (which is one of the reason of getting a Viewfinder).

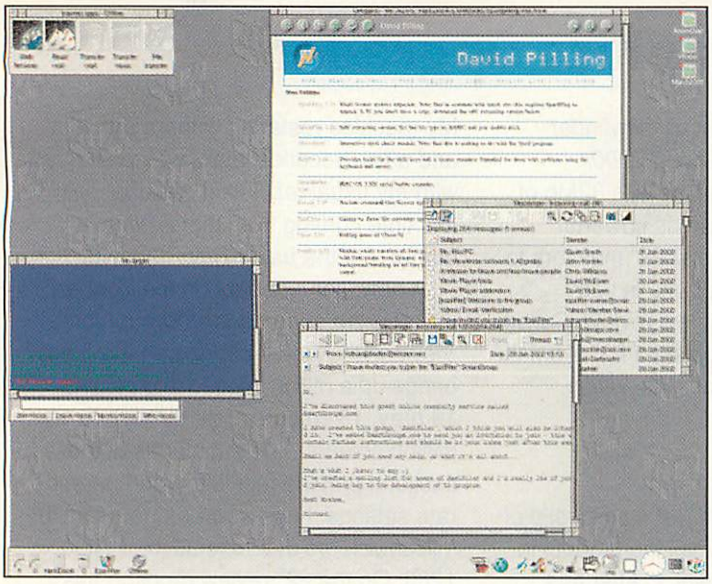
To set a custom rate, one has to middle-click over the usual *RISC OS* mode changer (which remains on the iconbar) and go through mode. Then, following the instructions in ViewFinderGuide, type in the necessary text. Before long, I had a screen of 1600 x 1280, 16 million colours and a refresh rate of 85Hz.

Strangely, when you add this to the *Viewfinder* presets, it changes it to 86Hz. However, Windfall state that this is not

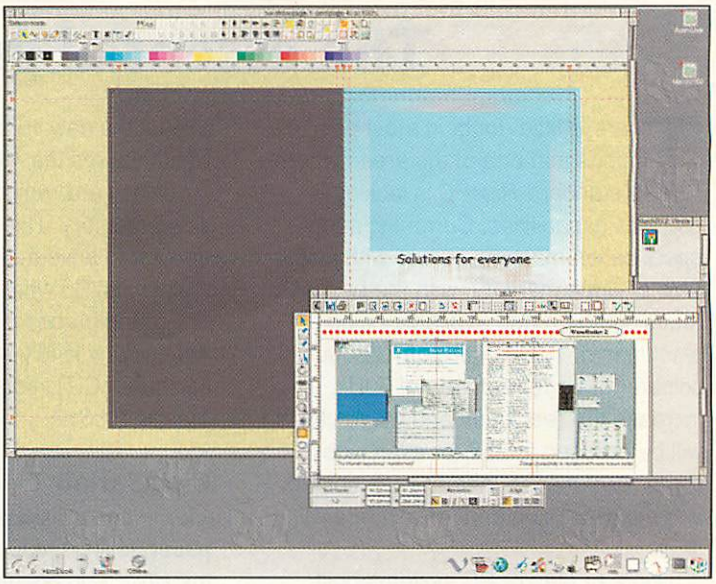


The screenshot above shows a RISC OS desktop running at 1024 x 768 - one of the most common native resolutions. The screenshot to the right shows the same desktop running at 1600 x 1280, with 16 million colours and at a flicker-free refresh rate of 84Hz. The screen is a lot less cluttered and provides a lot more work space, thus increasing productivity.





The Internet experience - transformed!



Design productivity is increased with more screen estate

actually a bug but a rounding error. They say that to be able to display a mode at 85 Hz, it has to be generated by a pixel clock X. X, however, can only be approximated. Hence the end result, when calculated 'back' to a framerate, can deviate by a Hz. In all honesty, this does not effect use of the *Viewfinder* at all, but it helps to know that there isn't a bug in the system.

Bigger is better

Having installed the card, I could now get down to assessing the effect of using a *Viewfinder* and indeed the 22" monitor. It is worth noting that if you buy a *Viewfinder*, you'll really need at least a top specification 17" monitor to take advantage of it. Likewise, you'll need a *Viewfinder* to adequately drive any large, modern display.

The first thing that strikes one when using a high resolution with *Viewfinder* is that *RISC OS* looks *good* at high resolutions. The *RISC OS* GUI was designed, amongst other things, to look good on low resolution displays. This means that some elements, such as title bars and the icon bar, are bigger than their *Windows* equivalents. Thus one can drive *RISC OS* at a higher resolution than *Windows* and it still looks good and is easy on the eyes. This is a good consequence of the original design, or maybe Acorn thought further ahead than we would have thought...

Another thing that is immediately apparent is that a 22" screen is not overpowering at all. Yes, it's huge, but very pleasant to use. I once tried a 19" screen with *Windows* and found it overpowering. Again, this could be down to the *RISC OS* GUI. The advice here is get the biggest screen you can afford, but always go for quality over quantity.

Viewfinder in use

Benchmarks and numbers mean nothing to most people, so there aren't any in this review. Here I simply installed the *Viewfinder* and carried on with my everyday business of editing and producing *Acorn User*, using the Internet and generally wasting valuable time (as one does).

Typically, the Internet was the first task thrown at *Viewfinder*. I often have many Internet applications open at the same time and it does get rather cramped at 1024 x 768.

This problem is eradicated by *Viewfinder*. At 1600 x 1280, I had plenty of room to spread out my various applications (see above for screenshot). All applications worked just as one would expect. Web browsing with *Oregano* brought a noticeable slowdown, but only in the way of graphics-heavy Web pages being redrawn on screen a little slower than usual.

I use *Ovation Pro* and Vantage in the course of producing *Acorn User* and my own work. These are the sorts of application that really benefit from the extra screen space. With *Viewfinder*, you can fit a whole A4 page on the screen without having to scroll around or zoom out. There's also loads of room for tool bars and tool boxes, not to mention the odd miscellaneous application open as well.

The extra space and flicker-free displays provided by *Viewfinder* will benefit just about every application you can think of. However, the *Viewfinder* does not come without a small selection of problems.

Some programs with naughty code in them - the most famous being *Sibelius* - simply will not run under Viewfinder. Users of *Sibelius* will not be able to take advantage of the new screen modes, although *Rhapsody4* (from Clares) is compliant (look out for our forthcoming review).

Overall, the desktop feels fast and responsive. The mix of a *Kinetic* card and a *Viewfinder* is actually quite impressive. However, very large bitmaps and some font operations tend to be slightly slower than the native system. However, we're not really talking painful delays here and it's not really an issue.

In conclusion

Viewfinder, as Windfall Engineering claim, speeds up many operations but can slow one or two down slightly. Overall, the speed-increases and superior screen modes Viewfinder offers far outweigh the small number of disadvantages. At £240, *Viewfinder* now offers excellent value for money.

Viewfinder
£240 (approx.)

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Jack Lillingston: Castle Technology Ltd

Eagle-eyed readers will notice the absence of the Public Domain column this issue. There is no cause for alarm; Public Domain is now bi-monthly and is in fact alternating with a new series of interviews, of which this article is the first.

Castle Technology

Castle Technology Ltd (normally know as 'Castle') is a major player in the *RISC OS* desktop market. Started as a partnership way back in 1993, Castle is now a registered limited company and a hugely successful business.

Castle started off small, like most businesses, but in just a few years grew to be the biggest Acorn dealer in the United Kingdom.

With their business based firmly on Acorn hardware development, it seems fitting that Castle were the ones to obtain the licenses to manufacture and develop the Acorn *RiscPC* and *A7000+* range of computers when Acorn withdrew from the market. This move is one of the major reasons the market continues to this day.

Jack Lillingston

Jack Lillingston is the Managing Director of Castle. He takes care of sales, promotion and the money side of Castle, whilst John Ballance (Castle's Technical Director) takes care of designing Castle hardware and overseeing technical support to customers.

This interview was conducted at Castle's premises in Framlingham (near Ipswich).

Michael Stubbs: Congratulations on the *NEURON* developments. The first product spawned by the *NEURON* is Cumana's *SLYM*. How has this been received and was there a positive reaction at this year's *BETT* show?

Jack Lillingston: It was received very well. It is worth understanding why we are doing *NEURON*. The success and future of RISC OS is dependant on sales. There is no doubt that the *RISC OS* education market is contracting. This is largely down to politics and the dominance of Microsoft. Home machines largely follow suit fairly quickly. Lots of people use PCs at school, so the home market is bound to be contracting too.

However, commercial sales have held up well. *RISC OS* is ROM-based and uses low-power processors. These are unique selling points.

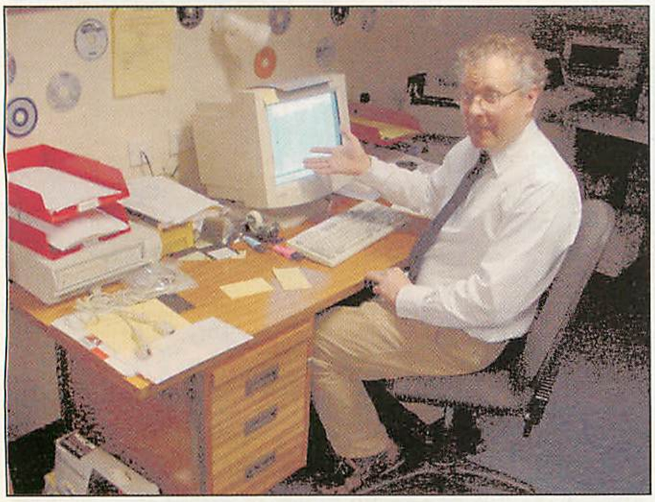
The concept of the *NEURON* was to give us the mechanism to get our technology into small and medium sized businesses, using existing technology. The *NEURON* gives businesses a modular, low-cost embedded computer with the option of adding a *Cortex*.

The work we've been doing with Cannon/Cumana is a good example of work we're doing with other people as well; to provide solutions for individual customers.

*[Information on the NEURON and Cortex is at **www.castle.uk.co/neuron**.]*

For example, *SLYM* is 33% faster because of *NEURON*^{100}*'s* 64MHz processor (the previous *Netstations* were only 48Mhz). It also has a faster boot-up time because it has client material resident in the Flash memory rather than loading *RISC OS* and other material from a remote fileserver. The actual performance is also enhanced by the fact that it has a 100BaseT network connection.

We have high hopes for *SLYM*.



Jack Lillingston, Castle's Managing Director

MS: Is *NEURON* a progressive series of developments, with *NEURON*^{300} and *NEURON*^{400} intended to incorporate faster processors and bus speeds etc?

JL: The *StrongARM* version of *NEURON* (*NEURON*^{200}) has to, at the very minimum, provide us with a replacement for the current *StrongARM* board. Therefore, the proposed specifications are actually the minimum the *NEURON*^{200} will have. It won't be until the product is released that we'll publish the actual specifications. What you see on the Web site is an indication of the specifications.

Our commercial customers, who are using *RiscPCs* in large numbers, are using our machines for their own business needs. Anything less than the current *RiscPC* would be a problem, anything more would not cause a problem.

The *NEURON* is a progressive development.

MS: How successful was *BETT* for you this year?

JL: We were there to demonstrate the *NEURON* and *SLYM*. The *SLYM* product has a huge number of advantages. Not only does it run *RISC OS*, but it also runs *Windows* through *Citrix*. It doesn't even need a file server; you can connect a modem and connect to the Internet.

It's interesting how many homes are setting up a network. We're seeing now a lot of homes with more than one computer in the house. This is another market for *SLYM*.

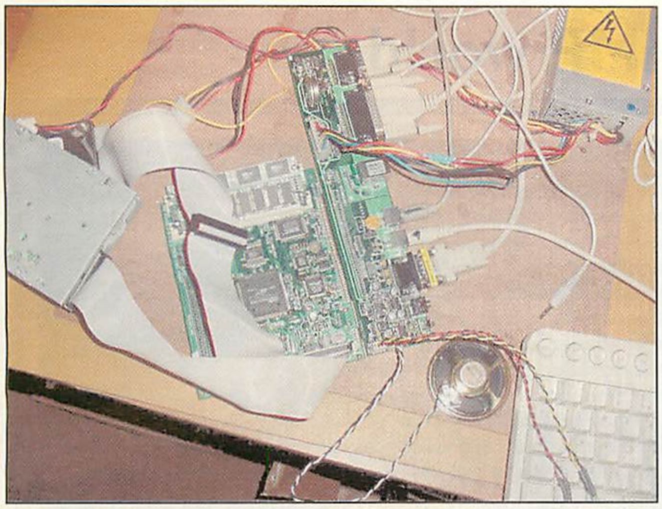
There were awful lot of people at the stand who were interested in and intrigued by *SLYM*.

MS: We've been waiting for *Oregano2* for some time now. Why the delay and can you give any idea of how much longer we will be waiting?

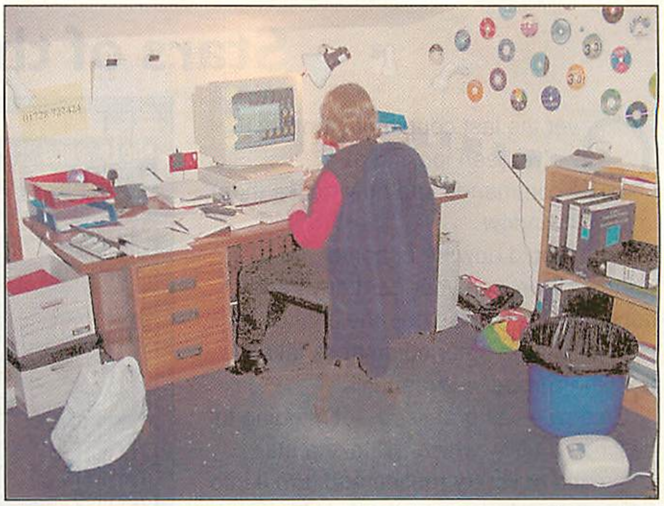
JL: We will make an official announcement as soon as possible.

MS: It was reported in *Acorn User* two issues ago that Castle is selling an increasing number of Acorn computers to commercial customers. What sort of commercial customers are buying Acorn machines?

JL: The type of commercial customers who would consider our technology, are the ones that are considering or are already using computer technology in their products. Where we can identify that a customer can benefit by using



A prototype Neuron board, as used in SLYM



Stacy Scruby, hard at work processing orders

NEURON technology, we'll be marketing our products to them.

For example, one of customers is an interactive whiteboard manufacturer. Currently, users of their product use a touch-sensitive white board, a PC running additional software and a projector. The *NEURON*, inserted inside the whiteboard (with it's low power consumption, resident flash etc), provides our customer with a unique advantage over competitors because there is no need for a PC. This would not be possible with PC technology due to the heat and the need for a harddisc etc.

MS: Why are commercial customers choosing Acorn?

JL: Our customers choose Acorn because of our products' Unique Selling Points. By and large these are business decisions and are not influenced by politics etc.

MS: Is there a future for *RISC OS* in education, or do you see it as time to pursue other markets for Acorn?

JL: It's important not to lose sight of what's happening in education, because I strongly believe *RISC OS* is the champion OS there. Castle has broadened its focus so that we can add other markets, without losing focus on existing markets.

Yes, there is a future in education, but it is also time to pursue other markets in addition.

MS: Have you had any schools actually coming back to *RISC OS* or any showing definite interest?

JL: We have a lot of schools who continue to buy *RISC OS* products. However pressure from the Government and school Governors to buy PCs is difficult to counter.

MS: When 32bit *RISC OS* appears and manufacturers produce the new hardware to go with it, do you think *RISC OS* machines will be able to compete successfully in the general desktop market, or does success lie in specialised markets?

JL: Success lies in having unique selling points. If 32bit *RISC OS* has this, it stands a good chance of succeeding. That's not to underestimate the amount of work needed for *RISC OS* to get these USPs.The specialised markets are as important as any other. I suspect it will give the *RISC OS* industry more sales.

MS: *VirtualAcorn*. Good or bad? Why?

JL: I have no problem with *VirtualAcorn* at all providing its is handled legally. However, running *RISC OS 3.11* is a backwards step for a lot of people. If you want to run *RISC OS* fast and reliably, you need to buy a *RISC OS* machine.

MS: What inspired you to start Castle Technology?

JL: We started Castle Technology in 1993 as a partnership. John was working at BT and I was working for a company called Lindis, that distributed John's hardware designs. It seemed sensible to join together.

Castle's first product was the *Ergo* keyboard. We did the keyboard, then went on to design our own IDE and SCSI interfaces, then networking and we then became an Acorn dealer. When Acorn closed their warehouse in Germany, we bought a large number *A3010s*! They had German configurations, so we had to replace all of the keyboards and other German bits. This was when we did the 'Buy ten, get one free' offer. The Acorn industry is an industry we know well and we know we can do lots of exciting things.

MS: Did you always intend to make your own hardware?

JL: Absolutely!

John Ballance (who joins us at this point): Castle is based on the premise that Jack can sell what I make.

MS: Did you ever aim to make your own computers, or was this purely due to Acorn's decision to withdraw from the market themselves?

JB: It was a logical development of the circumstances that we running in at the time.

JL: Our build cycle can be as little as four weeks, a huge improvement over Acorn. This means we can be very responsive to the market.

MS: Are you still as enthusiastic now about the market as you were during the education boom of the early 1990s?

JL: The biggest seller was the *A3000* in the early '90s. By the time the *A7000* came out, things had began to tail off.

I've been through two booms and therefore busts. I am as enthusiastic now as I was then.

MS: Thank you very much.

Michael Stubbs
editor@acornuser.com

Stars of the WIMP world

Over the last couple of months we've been looking at *-commands and how to use them in a task window.

You should now be at home wandering around your hard drive and hopefully you've also had the chance to play with some other commands taken from the *StrongHelp* manuals.

So now — as promised — I'm going to describe a utility which will take a star command or library routine and turn it into a fully fledged wimp application. It's not ground breaking stuff, but you may find it will turn some of your more laborious tasks into a drag 'n' drop induced breeze!

In order to turn a star command into a wimp application you would normally need to do some programming, but we're going to side step this by using a program called *StarApp*. In effect, most of the programming has been done for you; you just need to download the program from the *Acorn User* Web site at **www.acornuser.com/stars**.

Double click on the icon to get it on the icon bar, then click on this icon to bring up the main window. You should be presented with a window much like that shown in *Figure I*. Everything happens in this window, so let's take a look around it.

The most important part, as you might imagine, is the writable icon at the top in which you enter your chosen *-command. The format is the same as the commands which we were entering last week, the only difference being the variables <filein> and <fileout>.

The idea is that *StarApp* will create a separate application which, once created, will allow a file to be dragged to the application's icon and then let you save out a resulting file. The command will then execute with <filein> replaced by the path of the file you dragged in to the icon and <fileout> replaced by the path of where you dragged the save file to. If this isn't quite clear then don't worry, it should make a lot more sense after an example.

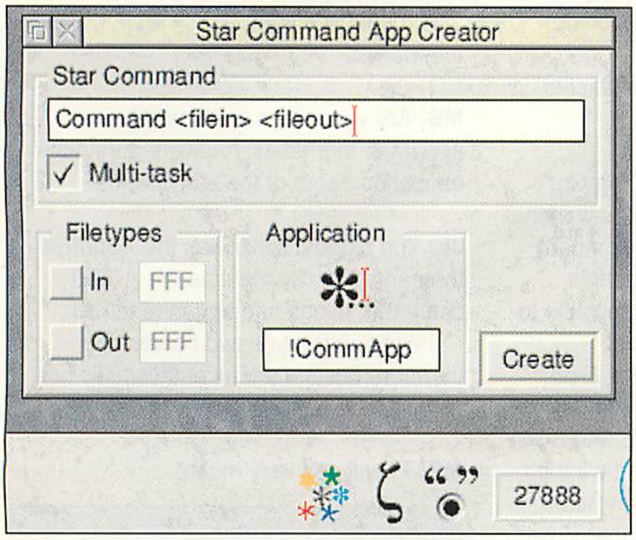


Fig I: after loading StarApp

Before we give the example, I need to explain what the Multi-task button does. If selected (with a tick) the command will be executed in a task window, meaning that it will occur in the background and you can carry on using the computer at the same time.

Unfortunately, not all commands are happy running in this way and for these it can be turned off. There are also a lot of commands which work almost instantaneously and for these there would be little point running them in a task window.

So we'll start with a rather simple example, to make a program which will copy the file dragged in to it to a new location. It's a bit pointless, I admit, but it should demonstrate how to get things going. Now as you hopefully know from last month, the Copy command has lots of different options (see *Figure II*). For our program we need to choose which will be turned on and which will be turned off.

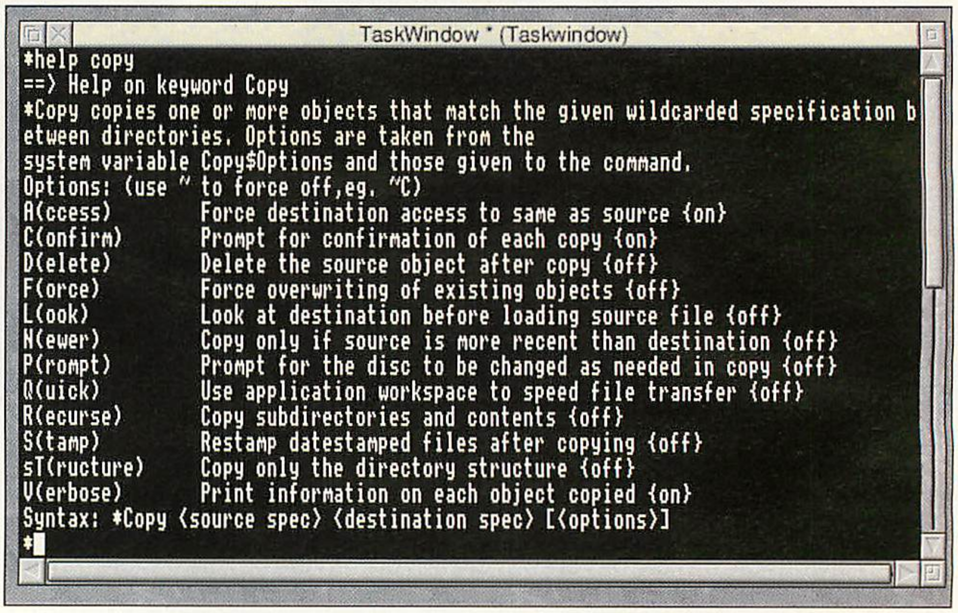


Fig II: The copy command has lots of different options

For example, we don't want prompting for confirmation or verbose output and if you run through the list, you should find a good choice to be something like

```
A~C~D~F~L~N~P~QR~S~sT~V
```

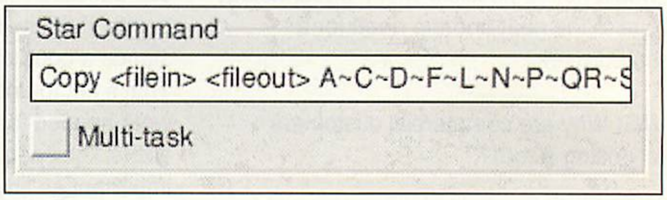


Fig III: commands with 'twiddles'

The 'twiddles' tell us that the option after will be off and those without 'twiddles' before them will be on. So the command we need in the icon is that shown in figure III.

As you can see, I've also turned off multi-tasking, since copy seems to object to running in a task window. Now to create our application, drag the asterisk sprite icon in the Application section into a filer window so that a full pathname appears below it. Having done this, click on the Create button and it should appear as an application where you asked (see *Figure IV*).

To check that your new application works, double click on it to load it on to the icon bar. Drag a file in to the icon and a save box should appear. If you change

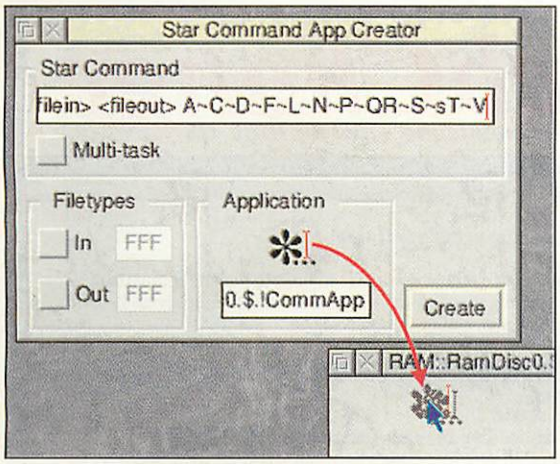


Fig IV: creating an application

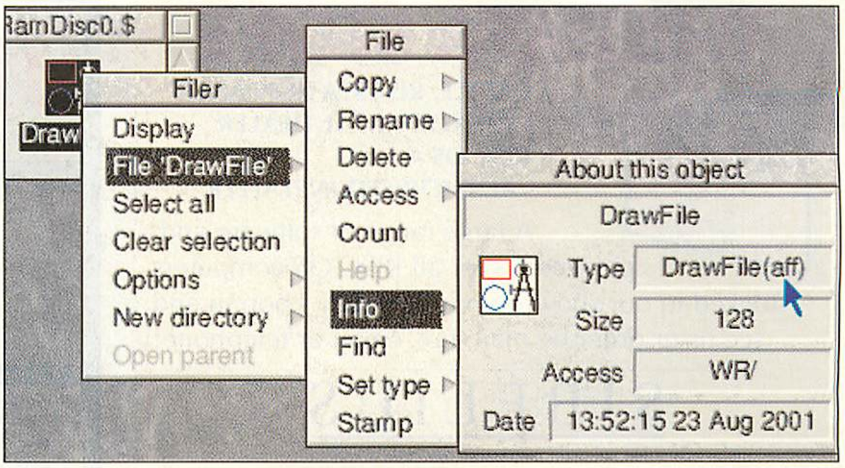


Fig V: the filer information window

the name to something new and drag this save icon somewhere else, you should find the file is copied to the new location with this new name.

What happens if you want to use a star command that only has input but no output, or vice versa? In this case simply miss out the instance of `<filein>` or `<fileout>` in the command description, the program will notice automatically and will no longer prompt you to save a file in or out, as required. What about the filetypes? Well, sometimes you only want your command to apply to filetypes with a certain type.

For example, the `Render <file>` command will plot a drawfile on the screen, but it won't work if you try to give it some other sort of file. To restrict the program to draw files, click on the In button and edit the text to the right from `FFF` to `AFF`, which is the filetype number for drawfiles.

To find out the filetype number of a particular file, just look in the filer information window as shown in *Figure V*.

If you don't select the Out button the program will assume that the output file has the same type as the input file.

Sometimes, however, the whole point of a command will be to change the type of a file. Take for example the *Squash* application. This accepts any file in, but once squashed it will always output a *Squash* file (type &FCA). If this is the case for the command you want to use, then select the Out button and enter the filetype which will be output and not only will this give the save box the correct icon, it will also set the type of the file after the operation is complete.

There are just one or two further things which need pointing out. First, if you want to give your application a new name simply type a different name into the path icon in the Application section before dragging the icon to a directory. Secondly you can also change the sprite of your application by dragging a spritefile into the window. The program will take the first sprite in the file to be the application sprite and the second icon in the file (if it exists) as the small sprite for directory displays with small icons.

Don't forget that if you have a program in your library which usually needs command line operation, you can also get the program to run these.

Some other good examples of how you might use the program are:

- As a way of adding programs to your resources directory using `AddApp <file>`;
- As a way of setting the CSD using `Dir <path>`;
- As a way of getting a hex dump of a file using `Dump <file>`.

I'll leave you to discover other uses for the program, but if you want to wrap a library function into the application, or if you know a little bit of *BASIC* programming, there's an explanation of how you can turn a *BASIC* I/O program into a wimp application in the box to the left.

In the next issue we'll be looking at Obey files and how to use system variables.

David Llewellyn-Jones
www.mat.bham.ac.uk/llewelld

Instead of placing an I/O function in your library, you may prefer to have a self contained application with the I/O routine inside the application directory. If you want to do this, you can use the `<Command$Dir>` system variable to point to the routine. Just before the command is run, this system variable will be set to point inside the application directory of the program which you've created. As an example, I have a utility called *Tidy* in my library which will check a HTML file and output a cleaner version. Instead of having it in my library, I could create an application using *StarApp* using the command

```
<Command$Dir>.Tidy <filein> > <fileout>
```

and then place the Tidy utility inside the application directory.

If you're writing a program in *BASIC* which takes files as input or output, you can turn them in to library functions by using the short piece of code in *Figure VI* below. This will take the command tail used when the program is run and place the first ten elements of it into the array variables `command$(0) to command$(10)`. So suppose you save your *BASIC* program as *Prog1*, then you could use

```
Prog1 <filein> <fileout>
```

to call your program and read `<filein>` and `<fileout>` from `command$(3)` and `command$(4)` respectively.

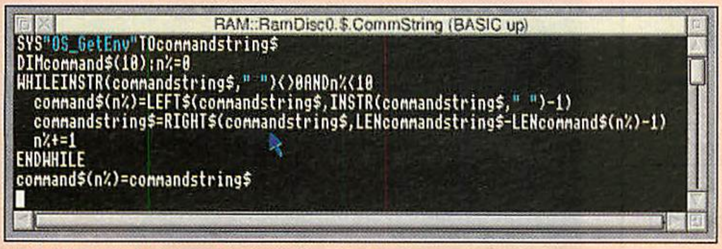


Fig VI: after loading StarApp

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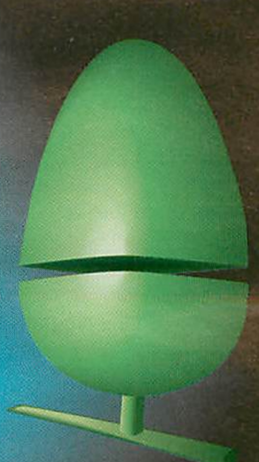
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RISC OS and the Internet – good companions?

The Internet is a somewhat strange area for *RISC OS* – somethings it excels at, some it is satisfactory at and some areas would certainly benefit from further development.

Of course, when I talk of *RISC OS* and the Internet, what I really mean is the applications available for *RISC OS* that provide the functionality for Internet usage.

Inspired in no small part by our very own *Keyhole* series ('Whose desktop is it this month?'), this article will take you through my Internet directory and hopefully show you the strengths and weaknesses of *RISC OS* computers for general Internet use.

Connection

Actually getting connected to the Internet has been a sore point for *RISC OS* for some time now. That is, until RComp released *DialUp* about a year ago. DialUp connects you to the Internet, fetches and sends e-mail and news and lets you disconnect again. Perfect, but what makes *DialUp* so special? Possibly it's best selling point is that it accepts .ins files from the *Windows* world. Signing up online with a *Windows* ISP often results in the Web site offering you a .ins file that will setup your *Windows* computer. Not much use to use *RISC OS* users until RComp decided to step in any give us the same facilities. Now all you have to do is drop the .ins file onto *DialUp* and everything is setup for you – number to dial, username, password, e-mail and news details.

DialUp doesn't actually give you the option to signup to an account, which is a downside, but this can be got around by phoning up an ISP and getting an account (taking note of appropriate details) or signing up elsewhere and bringing back the .ins file to your *RISC OS* computer.

If you buy *Oregano*, it comes with the option to install *Socketeer* which actually lets you signup to *Freeserve*, as you would on a PC. There is also an option to connect to *BT Click* which doesn't require a username or password; you can then go to an ISP's Web site and sign up for an account.

DialUp is convenient and opens up *RISC OS* to a huge range of ISPs. It is stable, simple and does the job well. There are many other applications that will connect you to the Internet, such as the *ANT Suite* (well supported by Paul Vigay), but if you seek wide compatibility and ease-of-use, choose *DialUp*.

E-mail

For me, and for the vast majority of Internet users, e-mail is one of the principal reasons for being on the Internet in the first place. It is fast, mostly reliable and very cost-effective. Apart from it's convenience, probably the best thing about e-mail is that people enjoy using it. You tend to find that people keep in touch a lot better via e-mail than the same people would via post or telephone.

Tau Press, like many businesses, makes extensive use of e-mail. Just about all *Acorn User* submissions come in via e-mail, as do adverts and general comments from readers. At home I have *Acorn User*, business and a variety of personal and Webmaster e-mail to check. I need this filtering and sorting into different accounts and the software has to be sturdy and reliable.

Thankfully, *RISC OS* has one of the best e-mail clients available on any platform. In fact, many would say it has two of the best. Like *Zap* and *StrongED* users, there are two groups of *RISC OS* e-mail users: those who use *MessengerPro* and those who use *Pluto*. Like *Zap* and *StrongED* fans, users can be fiercely protective of their choice of software.

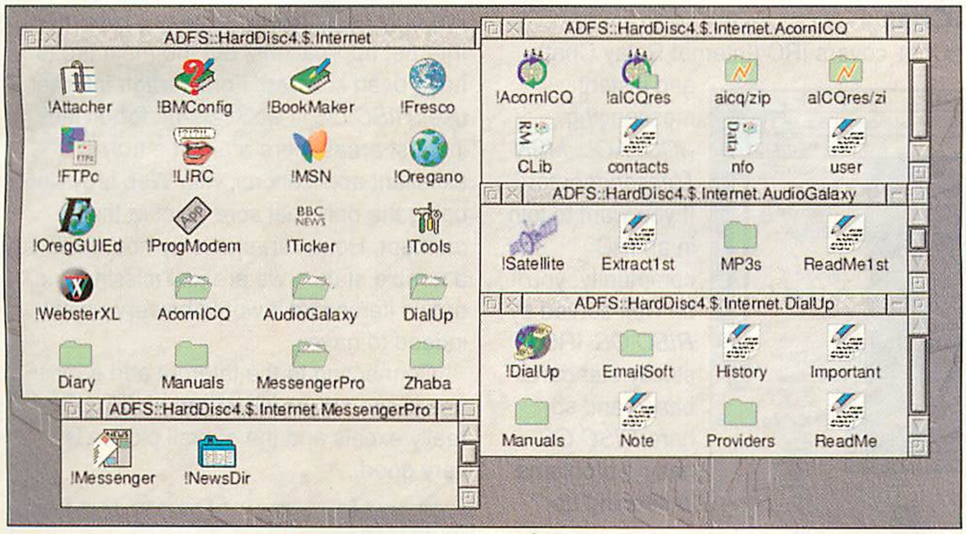
Personally, I use *MessengerPro*. I didn't really give *Pluto* a good test, as by that time I was already happy with *MessengerPro*. I chose *MessengerPro* in the first place because (a) I saw it in action at Tau Press and (b) at the time I was ignorant as to the very existence of *Pluto*. If a *Pluto* user would like to review the product, I'll be happy to print it.

MessengerPro is a truly excellent e-mail client. It is very easy to use, yet you can have very complicated setups. Now shipped with it's own built-in database, *MessengerPro* is no longer a beast to set up. It is now pretty much child's play and should be accessibly to anyone now.

At home, I have *DialUp* checking eight e-mail accounts (which include *Acorn User*, business, my main personal account and various others), all of which have different e-mail addresses associated with them. I require this e-mail to be filtered and sorted into different accounts and, in the case of my main personal account (which also handles mailing lists), to have certain e-mail sorted into separate folders.

A brief read of the printed manual and this is quite easy to setup. It works very reliably indeed. My only criticism is that the database takes quite a while to accept large attachments (in or out), which can be a pain, but this seems a small price to pay for such a good piece of software.

Whilst *MessengerPro* is an excellent e-mail client, it doesn't quite cope with all attachments. When sent from certain software on PCs, attachments don't always display properly in *MessengerPro*. Generally, one ends up with a very large page of code (nonsense to you and me) instead of a file attachment. *Attacher*, freeware by John Allen, fixes this problem. The offending message just has to be dropped onto the *Attacher* window, *Attacher* looks through the code and then



RISC OS is not short of Internet applications

you can save out the attachment. This is an invaluable addition to my Internet software. A recommended utility for any *RISC OS* user.

For e-mail use, *RISC OS* is very well served indeed.

Browsing

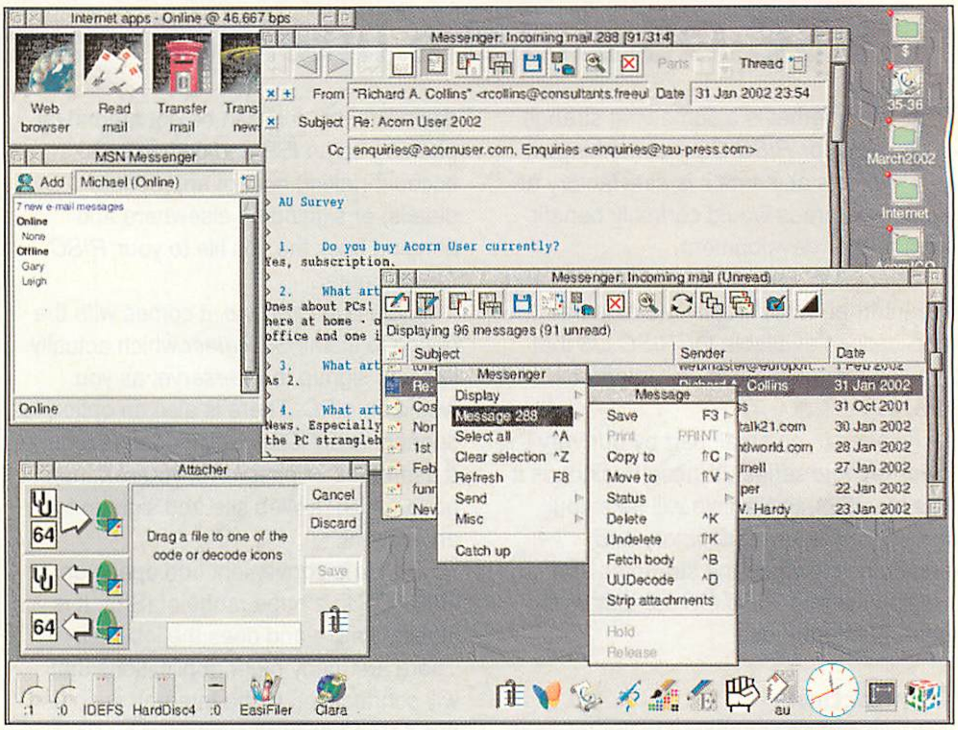
Browsing the World Wide Web is the weakness in the Internet armoury. There are many browsers available for *RISC OS*, although only two are under active development, but they do not have the latest bells and whistles available to *Windows* users.

The two main browsers, or at least the two browsers under active development are *Oregano* (from Castle Technology and Oregan Ltd) and *WebsterXL* (from RComp).

Oregano is the newest *RISC OS* Web browser and was released amidst much hype from Castle and universal praise in magazines. Updates were rapid at first, but the last few months have not seen any public updates. Castle hope to make an announcement in the coming weeks, so we wait with baited breath.

Until then, we are left with a very good browser. It deals with most sites perfectly and others sufficiently well enough to get by. Some sites are capable of totally defeating *Oregano*, resulting in a blank window or the dreaded Trap Handler error and an imminent crash.

The main problem is not really with *Oregano* itself, but down to the lack of plugins such as up-to-date *Java* and the latest incarnations of *Flash*. This all costs big money and so for the moment we must rely on *Linux* ports and native implementations, coded by a very hard-working group of *RISC OS* enthusiasts. Their work is often taken for granted or appreciation just not voiced, but I am sure I speak for all *RISC OS* Internet users in saying "Thanks fellas!".



MessengerPro in action, with Attacher standing by for any broken attachments

WebsterXL tends to be rather much slower than *Oregano*, although it is has proper hotlists and a cache and is a much more polished piece of software. It does seem to have slightly less success than *Oregano* but it is getting better and better. *WebsterXL* two promises to bring speed and modern Internet standards to *RISC OS*, so this is worth keeping an eye out for. As with *Oregano*, the problems tend to boil down to lack of plugins.

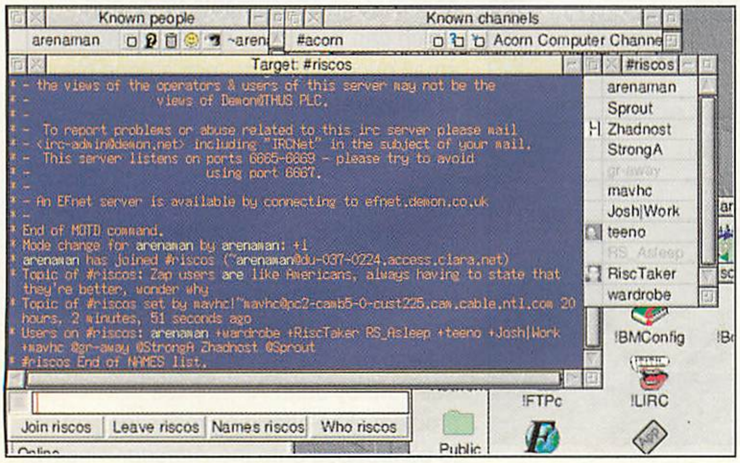
Overall, the browsing experience on *RISC OS* is quite satisfactory, although there is no glossing over the fact that we need *Java* and *Flash* plugins. Unless you are an avid surfer who just can't survive without *Flash* and *Java*, *RISC OS* is a perfectly adequate platform to browse the Web on.

Chat

'Chat' covers IRC (Internet Relay Chat) and instant messenging (*ICQ, AOL, MSN Messenger* etc). If you want to join in an IRC community, you'll be well-served by *RISC OS*. IRC is strictly standards-based and so here *RISC OS* has no problems in keeping up with the rest of the world. I personally use *LIRC*, which is freeware, to chat on IRC. It has a wonderfully simple user interface and is solid as a rock in operation. Highly recommended.

AcornICQ has recently been crippled by changes at *ICQ*. The protocols were changed and so *AcornICQ* no longer functions correctly. The authors are rewriting it to make a super-client, so great things are on the way. For now, though, *ICQ* is pretty much out of the question for *RISC OS*.

Perfect timing and along comes a *MSN Messenger* client (freeware, of course) to fill the gap. Quite simply, this works really well and does what it says on the tin.



LIRC in action on the #riscos channel

Conclusion

I've only really briefly skimmed over my Internet applications, but the main areas have been covered. For average Internet use, *RISC OS* is well-catered for. In fact, in most areas there are some truly excellent applications, with Web browsing being the only real sore point at the moment. However, that is by no means in a terrible state... we are just missing one or two items that it would be very useful indeed to have.

Connecting to the Internet and e-mail usage are two areas where *RISC OS* really excels and the overall picture is very good.

Michael Stubbs
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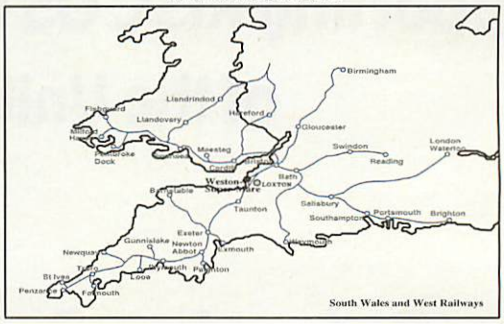
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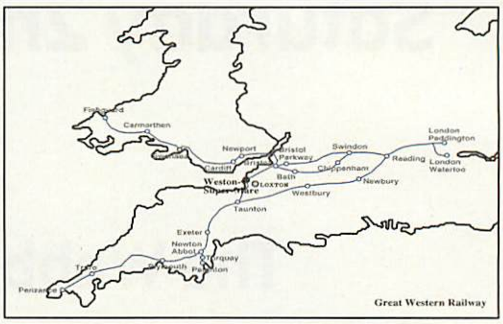
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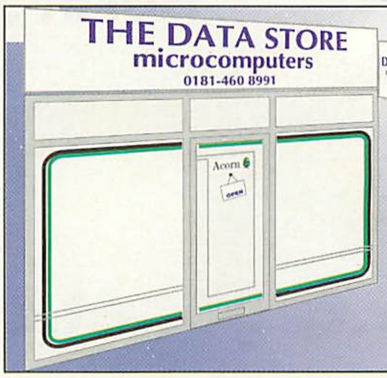
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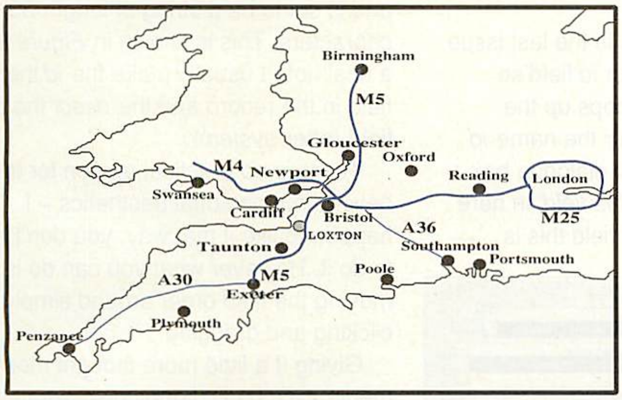


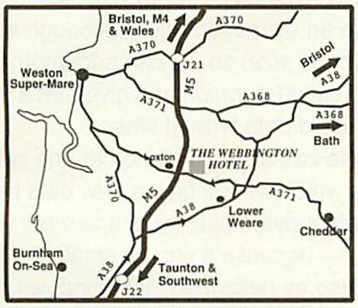
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Part 3: Tracking media

In the previous part of this series I ran through the various parts of what makes a relational database and how it applies to the type of program we want to create: the Media Tracker. Enough of the theory, we will now get down to actually creating the application using *S-Base*.

This is a tutorial on how to use *S-Base* rather than a description of all its facilities. So there will be times when I gloss over all the options in a dialogue box in favour of just getting something that is known to work. I won't sidetrack very much except where it has a bearing on the choices I make.

Now that we are getting into the nitty-gritty of programming we have a much screenshot-oriented article. There are two general approaches to programming; one of them is to start with the user interface and work down to the hardcore detail, and the other is to start with the detail and work up to the interface.

Personally I prefer a compromise; I get a little of the detail in place and then build some user interface on top at which point we have something that works. From there we spread outwards in all directions until everything is functioning. So the first thing we need is a piece of the nitty-gritty.

Data, data everywhere

The most fundamental object in the media track program is the media we are going to track. The first object we create is a datafile called *media*.

From the application list, open the file list and either press Control+N (for speed) or use the menu. Either of these pops up a *New* dialogue box into which you enter the name to use, in this case *media*, and then press Return. You then get a dialogue box (*Figure I*); you can ignore all the options, but note that a datafile has a label (which is used in the program) and a filename (which is used by the operating system). In most cases these will be the same. Just press Return again.

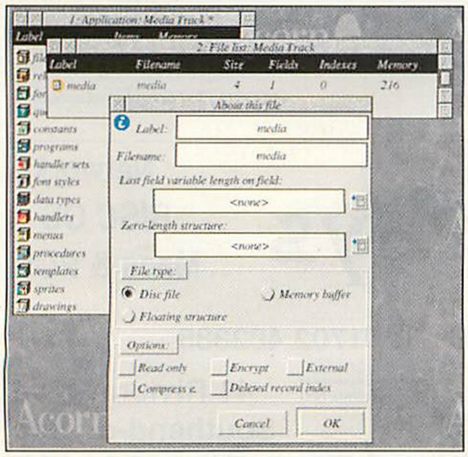


Fig I: entering the name to use

The datafile appears in the file list which you should now double-click and you get a list of all the fields in record for this datafile. Currently the only one is the one *S-Base* uses called *system*. It is important that this one stays as the first field in the record.

From our discussions in the last issue it is clear that we need an *id* field so press Control+N which pops up the "New" dialogue box, enter the name *id* and press Return. A new dialogue box pops up entitled *About this field*; in here you specify what type of field this is (whether it is an integer, a floating point number, a string, a date, a time etc).

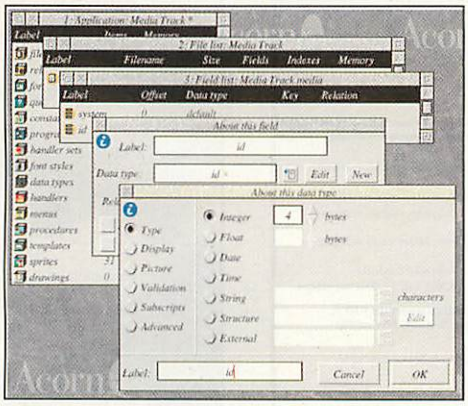


Fig II: create a new data type on-the-fly

Now we can define datatypes and although we could simply use the *i4* integer type (this is a four-byte integer just like *BASIC* uses), we can be a little bit clever and choose to define our own *id* type. In future we can always use this type when we want to refer to an id. Why? Because we might, someday, decide we want to change all ids from a four-byte integer to a three-byte integer. If we did then we simply change the basic id data type and it will be altered everywhere in the program immediately. This is unlikely, but this is a very good habit to develop for the day when it becomes important.

To create a new data type on the fly simply replace the *default* with *id* and click the New button. *Figure II* shows the dialogue box, there are lots of options here but all you need do is press Return as everything else is as needed.

Save it! Press Control+F3 and everything will be saved. Make sure you do this regularly.

Now for a bit of naughtiness; from experience I know that it is also very useful to have a textual description of every record as well as each one having an *id*. This field might not have unique contents (unlike the *id* which must be unique) but it is easier for the user to work with textual descriptions.

So we create a second field called *descr* which is of a new type called *descr* and is set to be a string of length 30 characters. This is shown in *Figure III*. As a final note I usually make the *id* the last field in the record and the *descr* the first field (after *system*).

There is no practical reason for this beyond my personal aesthetics – I happen to like it that way, you don't have to do it. However what you can do is try moving the field order around simply by clicking and dragging.

Giving it a little more thought most media (CD, DVD, floppy disc, whatever) have an overall duration (although it might be *size*) so we can add another field called *duration* and give that a standard data type of time.

We can also have another one called *size* which we will give a new data type of an eight-byte floating point number (call it *fp8*) — because it can be small or huge.

Also as described last month we have to have indexes and for the media datafile we will have two of them. One for the *id*s and one for the *descr*s.
Close the field list window and Shift+double-click on the *media* icon. The index list window appears with nothing in it. Press Control+N to get the new index dialogue box and enter the name *by id*.

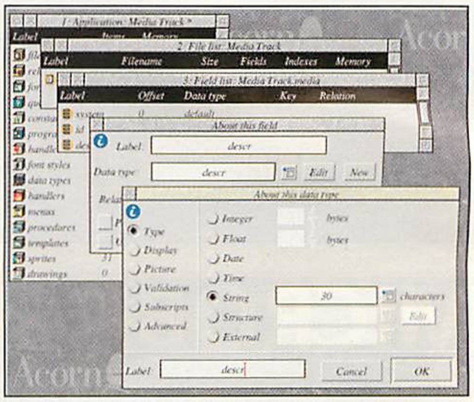


Fig III: create a second field

I hope you are noticing a pattern here when you want to create a new object of absolutely any variety in *S-Base*.

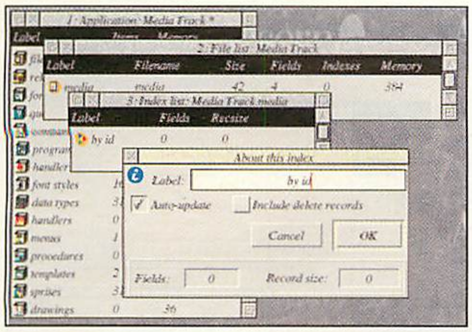


Fig IV: don't change anything here!

You now have a dialogue box and there's no need to change anything else just press Return (*Figure IV*). Then double-click on the *by id* icon to pop-up the list of index fields. Create a new one called *id* and then in the dialogue box select the id field as shown in *Figure V* and press Return. You have created an index of *id*s for the media datafile.

Now run through the same procedure to create an index called *by descr* based on the *descr* field.

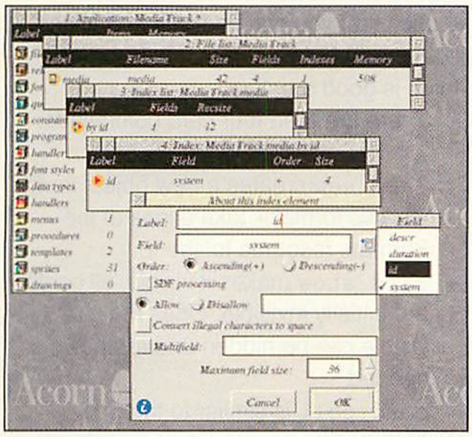


Fig V: select the 'id' field

It was about this time that I realised that I had missed something from the *media* file. This program is meant to track any type of media so, when we create a new media, how do we decide which type it is? This is where relations come into play.

We create a new datafile called *mediatype* and here we find a very handy feature of *S-Base* can speed things up enormously. Take a look at *Figure VI*; now open up the field lists for both *media* and *mediatype*, select the *descr* and *id* fields in the media window and drag them into the mediatype window. Bingo! there they are, all created and ready for use.

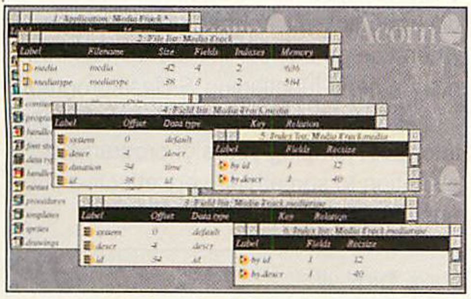


Fig VI: showing the field lists

Now open the index list windows for both datafiles and drag the *by id* and *by descr* indexes across; they too get created, but taking a mere fraction of the time – there are very real benefits in naming fields and indexes the same and many of those advantages will become apparent later.

We haven't quite finished with *media* yet, the whole point of this was to link *media* and *mediatype*. You can close down the *mediatype* windows and add a new field to *media*. Call it *mediatype_id*

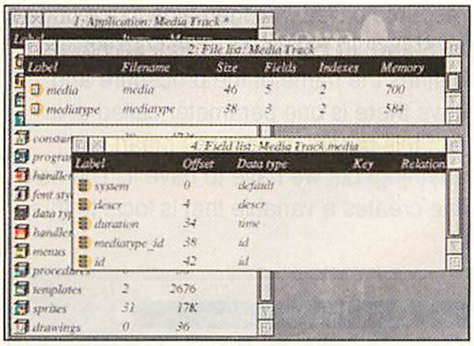


Fig VII: new field, 'mediatype_id'

and give it a datatype of *id* (*Figure VII*). We will use this field to store the media type.

Open up the *mediatype* field list. We have decided that a particular type of *media* may have either a duration or a size. But which? Or both? Or neither? Imagine for a second that we are creating a new *mediatype* we know as we do this whether this type of media has a size or duration (or neither or both). In the dialogue box we use to create a new media type we can specify whether we want duration or size, as switches.

So we need two more fields in *mediatype*; these are *duration* and *size* just as for *media* but this time we give them both a data type of *boolean* – which means they are either TRUE or FALSE. Once we have created a *mediatype* this information will be used to control what information we need to input into a *media* record of that type.

Getting on the iconbar

That concludes our work on the nitty-gritty we will now go up to the top and see how we can get something happening at the user-interface level. This is usually a nice thing to do because you can see something actually on the screen. The first thing we need to be able

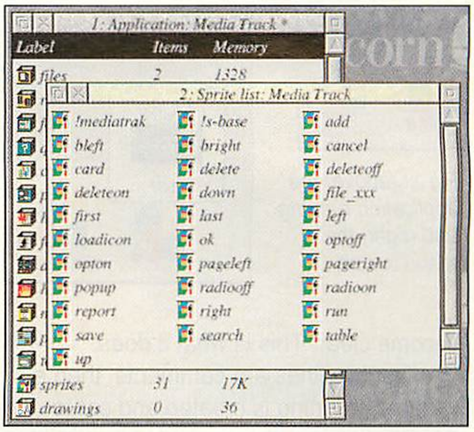


Fig VIII: the Sprites resource

to do is get an icon on to the iconbar. Open up the Sprites resource, you will find right at the top an icon with the name *!mediatrak* (*Figure VIII*). This is created automatically by *S-Base* and is a default that can be replaced when you are in artistic mood. Until then this will do fine.

To run the application you are creating press Shift+F9 (as long as one of the application windows is highlighted) and the program will run. Unfortunately all you will get is a flicker of the iconbar as *S-Base* puts the icon on the iconbar and then removes it as the program exits. Currently you have no application so nothing happens.

Open the *Programs* resource – you will find a default program called *startup*. The *program* with this name is automatically run when the application is started up. Double-click on it and you'll find it empty apart from a single bar character and a Return character.

The bar character as the first item on a line in any piece of code indicates that what follows is a comment and is ignored by *S-Base* when it is running. Type in the text that is shown in *Figure IX*. Now much of this will appear completely redundant at the moment; however its use will

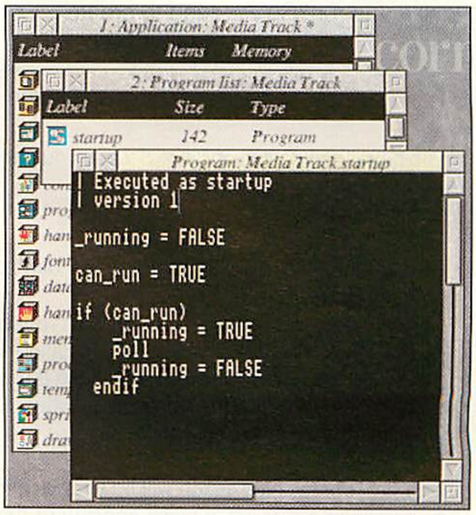


Fig IX: type in the text shown above



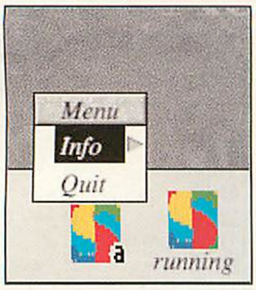


Fig X: (above) the application running and (right) the menu to quit

become clear. This is what it does: The first two lines are comments, then a variable _running is created and set to FALSE, then another variable is created can_run which is set to TRUE.

The first variable can be used in other parts of the program to check whether the application is properly running yet to avoid errors. The second variable will actually be set by some set-up procedures we will put in later, and might be set to FALSE in which case the application will simply exit rather than run. When we get to the *if..endif* block, this is processed if *can_run* is TRUE and skipped if it isn't. Inside the block we set the _running variable to show we are running properly and then we have the poll command which starts up the multi-tasking of the whole application.

Before it takes effect you must press F3 and Return, which saves the new code into the application, then press Shift+F9 to run the code and hurray! you get an iconbar icon. Not only that but you can even click Menu over it and select Quit, and it will (*Figure X*). However, trying to display the Info window will generate an error. So let's fix it.

Open up the Menus resource and double-click on the *iconbar* item which gives you entries for Info and Quit you can see the dialogue boxes in *Figure XI*. The error message you get tells you that there is no procedure called *info_open* which apparently the application is trying to find and run. So we need to create one.

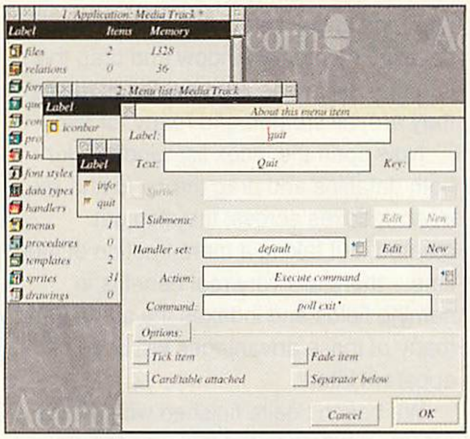


Fig XIa: entry for Quit

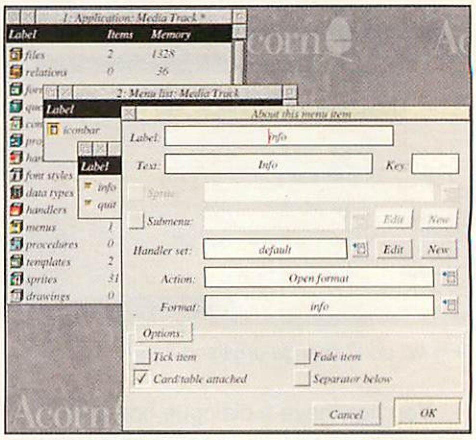


Fig XIb: entry for Info

Open the Procedures resource, which is empty, and create a new procedure resource called *info* then type in the code as shown in *Figure XII*. The first line defines the name of the procedure and says there is one parameter called *a*; in fact this parameter doesn't mean anything, but we have to have it. The next line creates a variable that is local to this

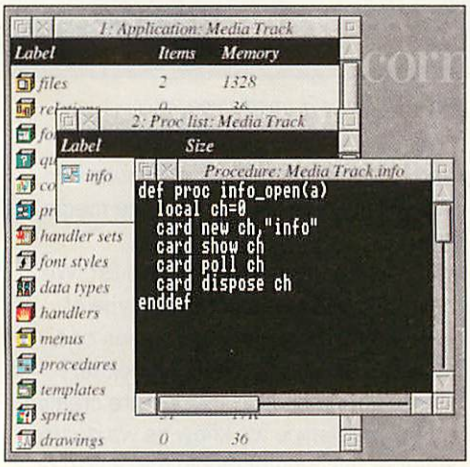


Fig XII: creating a new procedure resource

procedure – it is critically important that you make as many variables local as possible. Global variables should be kept to an absolute minimum (such as the *_running* variable). Local variables prevent bits of programs interfering with other bits and creating errors that are virtually impossible to track down.

I called this variable *ch* to stand for Card Handle. Any window created by *S-Base* is called a *card* and every object created in *S-Base* has a unique handle of its own, which you use to refer to that object. You don't have to set *ch* to zero (notice that you can do it within the local statement) but once again this sort of thing is good practice.

There are then four card commands:

- `card new` creates a new object from the *info* format – take a look at the Formats resource to see it.
- `card show` makes it visible, all cards are initially invisible. Ones that are visible can be hidden and re-shown as needed.
- `card poll` is similar to the `poll` command except it refers specifically to *S-Base* going away by itself and checking for things happening to this card alone.
- `card dispose` gets rid of this object.

Once *S-Base* decides we can return from the card poll command, execution returns to this procedure and this next command gets rid of the card and returns back from whence it came.

Now assuming *everything has* been entered correctly you will be able to go to the Info item on the iconbar icon menu and when you hit the arrow the info dialogue box will appear, and disappear when you go back to the menu. You now have a semi-functioning *S-Base* program.

Next month we will create a real user-interface, jumping years of programming evolution to something very effective but easy to use.

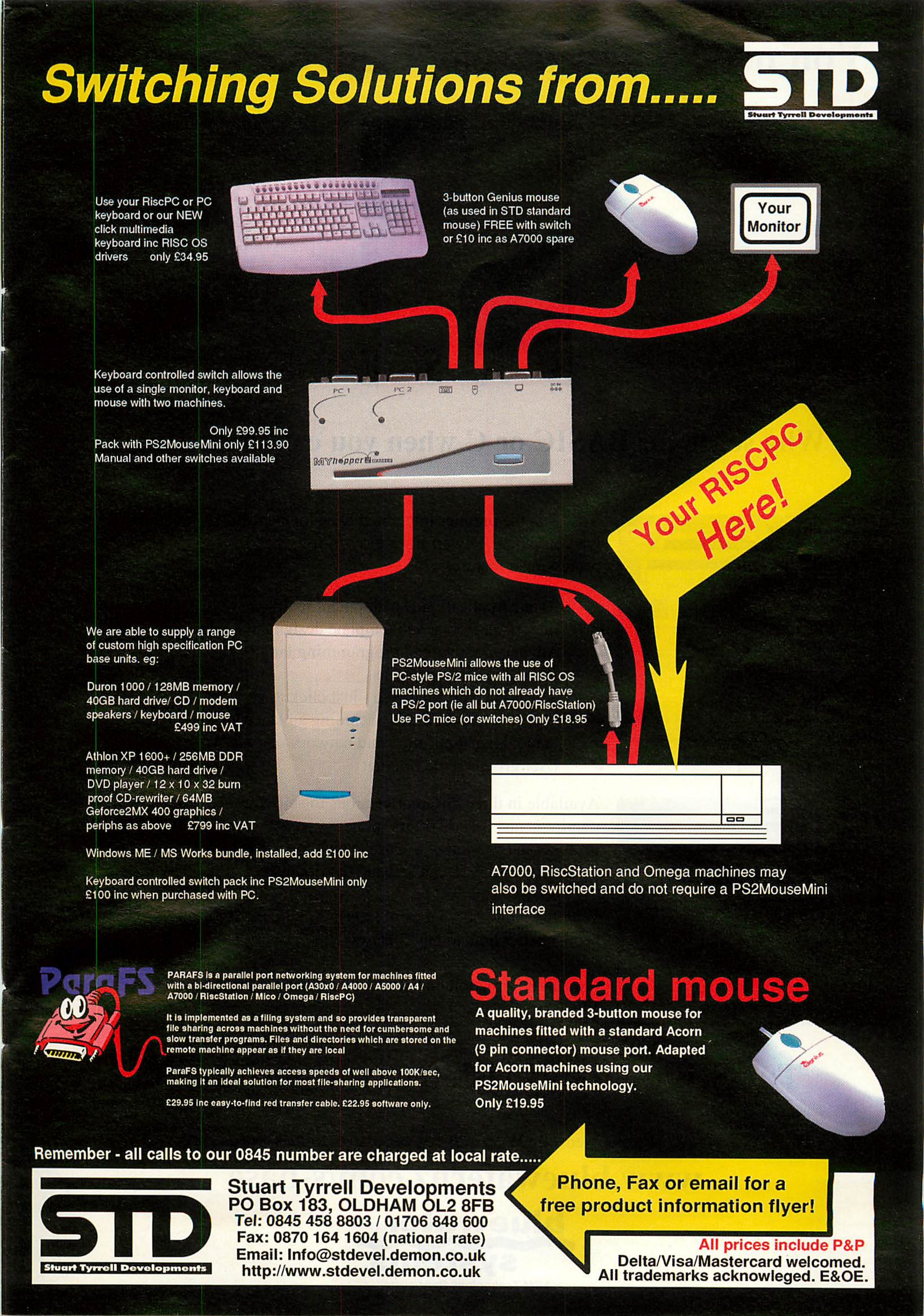
On the Web site

If you have the latest version of *S-Base* you can find an *S-Base* textual archive of the program as developed so far.
In order to use it:

- Create a new *S-Base* application, you don't need to give it a special name.
- Quit *S-Base*.
- Open up the new application with Shift+double-click.
- Copy the archive file (make sure it is called "archive" and not "archive/txt" and has a filetype of text) into the new application and close the window.
- Control+double-click the application, when *S-Base* asks you whether you really want to destroy the existing application, say yes you want to.

The archive of my application will now replace the default one and you will be able to try it out. You can find the archive at **www.acornuser.com/sbase**

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RISC OS and the most detailed map of Britain

Around 400 million features of the British landscape appear on a revolutionary digital map, showing the whole country redrawn in unprecedented detail.

National mapping agency Ordnance Survey is taking the wraps off OS *MasterMap* after a huge two-year project to digitally reference not just every building and field, but detail as fine as railway signal lights and free-standing letter boxes.

It is like an enormous national jigsaw made up of 400 million pieces, with each one 'barcoded' with a unique 16-digit reference number known as a topographic identifier or TOID. The Tower of London, for example, is 0001000006032892.

TOIDs offer a higher level of detail than postcodes or individual addresses as they identify millions of non addressable properties and natural landscape features such as small waterways and areas of woodland.

As well as telling you where a feature is, a TOID is also a direct link to a description of what it is. Best of all, a TOID can be loaded with extra detail within a user's computer system and shared between users, so acting as an unambiguous and electronically mobile package of information.

This breakthrough opens up a host of possibilities in easier data sharing and management for utilities, local and central government, and any business supporting a branch network, customer base, or other geographic infrastructure. The associations created by TOIDs could even foster closer cooperation between government and business.

"*OS MasterMap* is the most detailed, definitive and intelligent mapping we have ever produced," says Vanessa Lawrence, Ordnance Survey's Director General and Chief Executive. "It has been developed in consultation with industry and government and with the knowledge that around 80 per cent of all the information held in Britain has some geographic content. As they are taken up, TOIDs will become common hooks held on any number of databases within and between organisations, bringing significant benefits in the way information is integrated, manipulated, analysed and presented."

Unlike earlier very detailed digital map data, *OS MasterMap* provides continuous mapping of the whole of Britain from which users can select the precise area of coverage they need. As it is not restricted by fixed map tiles, it is truly seamless. It has also been created in a series of themed layers which users can pick and mix as they wish. Nine themes become available in the initial release of data today: roads, tracks and paths; buildings; land; rail; heritage; height; water; structures; and boundaries.

Users can stay up to date through regular web updates showing only those features that have changed. Whereas before they would have received a complete resupply of their data on CD-ROM, the change-only facility means they can be sent just those features that have been updated, cutting dramatically the size of update files and the overall costs of data handling.

In time, all Ordnance Survey products will be created from *OS MasterMap* - even new generations of its most popular paper maps such as *Landranger* and *Explorer.*

Consultations are under way with users of the existing large-scale digital product, *Land-Line,* to ensure that the conversion to *OS MasterMap* is as easy as possible. In the meantime, the two will run in parallel.

The government minister responsible for Ordnance Survey, Sally Keeble MP, has praised *OS MasterMap,* saying that the launch "...will make it easier for businesses, government departments and local authorities to view their own information, and the information of others, in a common geographic context."

Meeting the master challenge

Ordnance Survey first introduced digital mapping in 1973 when it started digitising its large-scale mapping archive in order to streamline the map production process. It took the next step when it created the *Land-Line* product, supplying the digital data to customers in electronic form. This allowed customers to display Ordnance Survey maps in their own systems and electronically overlay their own data.

OS MasterMap is the next evolution of Ordnance Survey large-scale data. While *Land-Line* is largely a cartographic product, *OS MasterMap* is designed to enable sophisticated analysis in GIS applications and to allow closer integration with third party data. At the heart of this evolution is the creation of object-based data - making features represent objects in the real world rather than the graphical elements of a map.

The most noticeable addition to achieve this goal is the provision of area features, or polygons, alongside the lines and points familiar to *Land-Line* users. To complement this rich feature set, numerous additional attributes have been added to describe the nature of the feature as well as just its location.

Furthermore, *OS MasterMap* supports closer integration with user data by providing each feature with a unique identifier, allowing users to associate their own information with the *OS MasterMap* features.

To enable the *DNF* and the *OS MasterMap* products, Ordnance Survey had two main technical challenges to meet. Firstly, enhancing the content of the *Land-Line* map into real-world objects. Secondly, moving to a whole new paradigm of data management, storing its data in a single seamless database.

Enhancing the content

The main obstacle to using *Land-Line* for geographical analysis is its inherent cartographic history. To a person looking at a graphical display of *Land-Line* it is clear where the building, roads, fences and walls are.

However, to a computer with no understanding of the physical world there are just lines and points in different locations.

Due to the enormous amount of detail in Ordnance Survey large-scale mapping it was not practical to use human operators to identify, describe, and recode every real-world feature shown on the map. Ordnance Survey therefore had to automate the vast majority of this work.

To achieve this, its software developers built systems to interpret the *Land-Line* maps and convert the cartographic information into real world objects.

Built on Laser-Scan's object-oriented *Gothic* architecture, the conversion process used a highly complex rule base, alongside a detailed object-orientated data model. This approach enabled the automatic classification of area features as well as inferring numerous closing links to further subdivide areas (polygons) into more meaningful units. However,

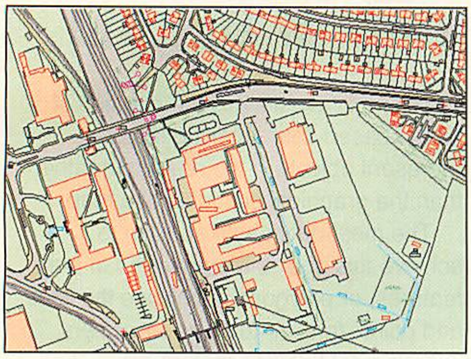


Fig I: a 'zoomed-out' view

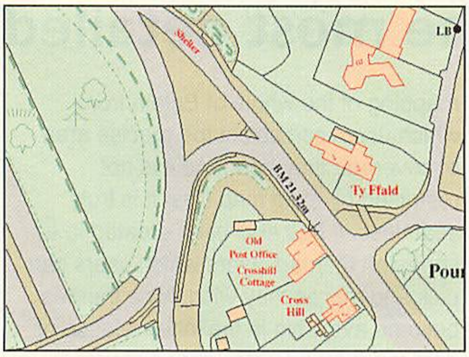


Fig II: part of a roundabout on an M4 junction

before achieving this goal, over 60 million geometric inconsistencies within the *Land-Line* data had to be resolved without affecting the positional accuracy. The result, after a year of processing and less than 1% of manual editing, was the total re-engineering of the large-scale data and first stepping stone to the creation of *OS MasterMap*.

Managing the new data

In the past Ordnance Survey has held its maps as a set of separate map files. With *OS MasterMap* the entire mastermap of Great Britain is held as a single seamless database. Instead of finding a map location using a National Grid map sheet reference, Ordnance Survey data is now retrieved by defining exactly the area and data of interest. Features are now selected individually from the archive to meet the needs of each customer.

Managing the *DNF* database presents some unique technical challenges, including a relatively complex data model. The *DNF* uses topological polygons to represent areas. This means defining areas by referring to the lines that surround them instead of holding the coordinates within the area features themselves. So, besides dealing with a very large number of features, Ordnance Survey has to manage the fact that they are all connected to each other and those relationships must be properly maintained.

OS MasterMap is an unbroken web of 400 million features stretching from Land's End to John O'Groats. There are no natural divisions in this network (each feature is next to another, which is next to another, and so on, from one end of the country to the other) so the data management systems at Ordnance Survey must present this giant dataset as a single entity to the user.

Because *OS MasterMap* is so complex, Ordnance Survey's data management system has to provide a variety of ways to select from the database to make using the *DNF* easy for customers. The *DNF* features can be selected by combinations of area and theme.

Change-only information can be supplied by selecting all features changed since a given date. Features can also be retrieved by their unique identifier (known as a Topographic Identifier or TOID). Ordnance Survey has developed bespoke indices within the database to ensure that for all these patterns of access the features can be retrieved efficiently.

Another challenge for the data store is the wide variety of feature sizes. The area features range from something as small as a garden shed to something as big as Loch Ness. The systems have to reliably deal with either extreme from one moment to the next.

The system is engineered to provide a variety of output formats. *OS MasterMap* is available in two geography mark-up language (GML) formats: independent polygons, and topological polygons. This, combined with the fact that each customer is given a selection of features specific to them, means that every file of *OS MasterMap* data has to be individually created from the database for each customer.

To create *OS MasterMap*, Ordnance Survey has brought together a wide range of technical developments, including customer-specific feature selection and high performance, each one challenging in its own right. It has done so on an industrial scale creating a product which is not only a sophisticated data product, but also one of the largest databases of its kind in the world.

MasterMap on *RISC OS*

Fortunately for us, there are *RISC OS* users within the Ordnance Survey, so as soon as *MasterMap* was released development started.

As from 12th December 2001, David Snell's *ProCAD+* can import the new *MasterMap GML* format. For the Independent Polygon version of the files, areas can be automatically filled with colour and/or symbols. Two samples at different scales of zoom are shown here. Both pictures show screen-shots from the results of loading the sample independent polygon *MasterMap* file downloaded from the OS web site into *ProCAD+*.

Figure I shows a zoomed-out view of a small part of the map. The roads, railway, housing estate and major buildings can all be seen. When you zoom in you can even see the house numbers, the garages and garden sheds!

Figure II shows part of a roundabout and slip roads on a junction on the M4. At this zoomed-in scale the use of line thicknesses can be seen to mark the top and bottom of slopes. The fill symbols and house numbers are also evident.

When you import a *MasterMap* file into *ProCAD+* you will find that all the hard work has already been done for you. A special blank drawing is provided to load the file into. This has been set up with a special palette that uses the colours recommended by the Ordnance Survey and all the symbols required are already pre-loaded.

All you have to do is to ensure that the file has a filetype of DOS or Text and drop it in. In no time your map will appear before your eyes.

In addition to the special blank drawing *ProCAD+* also uses another file during the interpretation of the map data. This is a text file and contains the details of the choices of colours, line-thicknesses, patterns, etc. It may be edited to change the interpretation of the map data to your own requirements or may be used to turn off specific data types. This file also determines which layer items are placed on so the layer mechanism may be later used to switch off various classes of data if required.

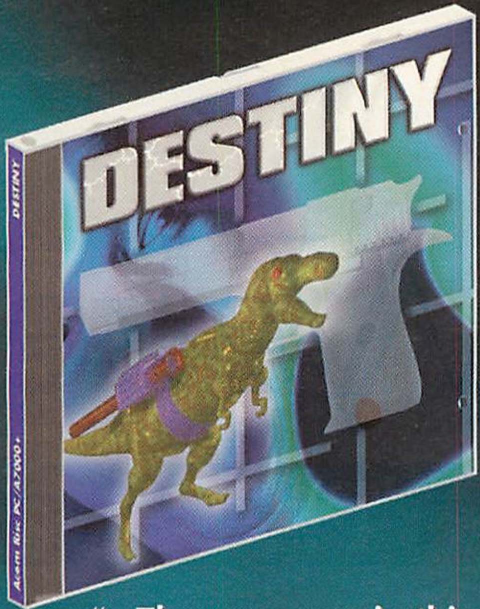
It should be noted that the two sample *MasterMap* files available from the OS web site are self-extracting Zip files of 1.6 and 1.2Mb. When decompressed, these files are over 24Mb. They can either be decompressed on a PC or by David Pilling's *SparkFS*. *Spark* or the free *SparkPlug* will not do.

If you would like to try all this out for yourself you can do so. The free evaluation version of *ProCAD+* available from the Web site: **www.zynet.co.uk/dsnell** will load *MasterMap* data.

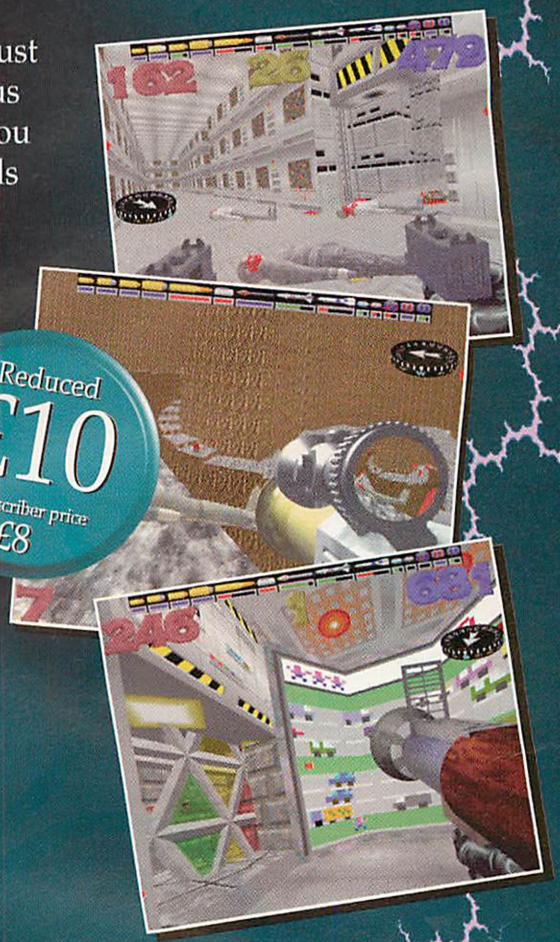
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- Marcel and CIX Conferencing compatible
- System admin control such as 'forced replies' and 'open/closed' email times/days.

Classic Games Compilation **£10.00**

A compilation of classic games including:

SuperSnake - an addictive version of the old favourite arcade game, featuring configurable keys, one or two player games, computer controlled snake and over 20 increasingly difficult levels.

Runeseeker - An arcade adventure. Can you explore the maze to locate all the hidden coins and escape with your lives intact? Features 12 fiendishly difficult levels, teleports, locked doors, bombs and even an unfriendly yeti intent on hunting you down!

Shanghai - A desktop version of the classic Chinese strategy game. Can you remove all the matching tiles in the quickest time? Featuring different tile sets, board styles and difficulty levels.

BlackJack - A desktop version of the popular casino card game, featuring full casino rules.

Nightmare Park - A bonus RISC OS version of the original BBC B classic featuring the original 'mode 7' graphics but now RISC OS 4 and StrongArm compatible.

VZap **£10.00**

The original Acorn virus scanner.

- Free support as and when new viruses are discovered
- Easy use. Start scan with only two mouse clicks.
- Network compatible for schools and colleges.

These and **more** shareware applications and utilities are available to download for free evaluation from:
www.digitalphenomena.co.uk/software.html

Web design and general Acorn/RISC OS consultancy and help available. Please email for details.

Whose desktop is it this month?

Did you guess who the desktop featured last month belonged to? It was none other than your Editor, Michael Stubbs.

This month's desktop is somewhat of a contrast to last months minimal affair. Again, this person likes to have all their favourite applications to hand, and sticks a great many of them onto the backdrop (although a few have been removed, to save giving the game away...)

This person is a tidy person at heart and favours a simple, yet effective hard drive layout, with everything in it's place - hence a minimalist 'root directory' and the utilities directory sorted into handy sections in order to categorise where things go.

There are a number of essential utilities loaded on bootup; *NeXTBar* by Paul Vigay, which provides a useful application launcher and can also manage which other applications are also loaded on bootup. *Organizer* by Chris Morison is also immediately to hand which, coupled with a caller display unit on the phone, enables this user to immediately see who is phoning up as soon as the telephone rings. It's a 20GB drive, so there is plenty of space for even the biggest of files and images.

A *Viewfinder* card is fitted to this *StrongArm RPC700*, which allows this user to have a default desktop of 1600x1200 in lots of colours. Running on a Sony 19" monitor this allows for several windows to be open at once, so that this user can immediately see what they are doing, whether it's editing a Web page or answering e-mails. Even having two A4 pages from *Impression Publisher* side by side.

Having subscribed to *RISC OS Select*, this user likes to keep at the cutting edge of *RISC OS* development, not only regularly keeping all the applications and utilities up to date, but regularly scanning the Internet for any new utilities to add to the collection of essentials. However, being an Acorn fan for many years, this person has replaced the current *RISC OS* switcher icon with the classic 'Acorn' one, simply because it "looks nicer and reminds me of the heritage of the machine".

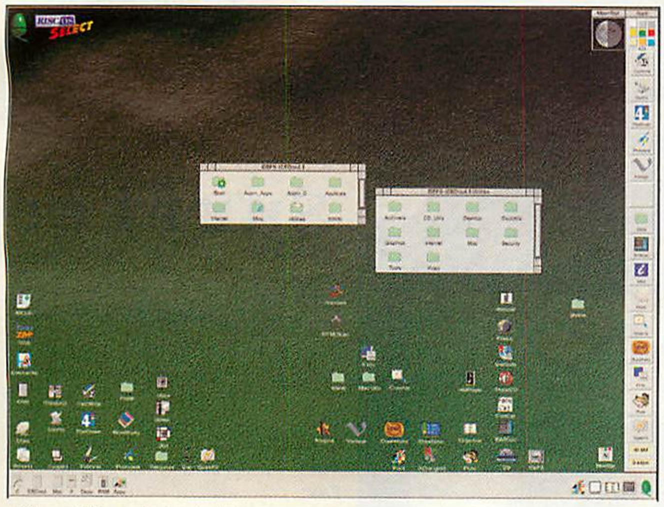
The owner of this desktop uses *RISC OS* for all manner of computing tasks, so there are the majority of professional applications installed on the computer; some for day to day usage and others for occasional use or leisure activities.

Major applications include *Impression Publisher* for DTP work. Although a full copy of the latest *Ovation Pro* is also installed, this user has been using Acorns for many years and still tends to use old stalwart packages, simply because they work, and are so reliable.

Photodesk Olympic edition and Cerilica's *Vantage* are two frequently used graphics packages, as this user does a great deal of graphics creation and editing, ranging from creating black and white diagrams to graphical logos and banners for Web sites.

This person also does quite a bit of writing, not just desktop publishing, so *Techwriter* by Icon Technology is also installed and used frequently. This is a fantastic multi-purpose word processor. Of course it's more than just that, but there again this user admits to only using about 1% of it's features.

However, it's also useful for transferring documents to and from other people who insist on using Microsoft *Word*. As a matter of policy this users refuses to send *Word* format documents to other people, but *Techwriter* is ideal for converting *Word* documents received from others. For this purpose it's better than the 'real' *Word* as it doesn't seem to suffer from the quirks different versions of *Word* seem to impose. *Techwriter* seems happy to read files from *Word 6* right through to *WordXP*.



View of the whole desktop

For good measure *Pipedream 4* is also installed on this machine, and used regularly for database and spreadsheet purposes. An additional benefit being it's ability to print letters and documents without using the *RISC OS* printer driver. Having an aging Canon bubblejet printer lets this user rapidly do a quick print using the standard printer font. Not many modern applications allow that, and it can still be switched to the *RISC OS* driver if graphics or anti-aliased fonts need to be printed.

This person does a fair bit of web design, including digital photography and photo archival. Therefore some other essential applications on this machine are *Zap*, *InterGIF*, *Fresco*, *Draw* and a collection of JPEG utilities by J. David Barrow (*Jsize*, *Jclean* and *Jcut*). Of these *Zap* has to be one of the most useful applications ever used. It's just indispensible. In fact, it's probably one of the main reasons this user wouldn't defect to an alternative computer system. Because *Fresco* interactively updates Web pages when you edit them in *Zap* (this person prefers hand coding HTML), it's very quick and productive.

Indeed, this helps immensely in a business sense because this user can guarantee clients that a Web site can be created in half the time any competitors quote. *RISC OS* allows this because creating Web sites is so much easier than using *Windows* - even when equipped with 'industry standard' applications such as *Dreamweaver* and *HotMetalPro*.

Because a lot of use is made of the Internet, this person makes extensive use of *Pluto*, not only to manage 1000's of messages and text documents but also to manage several large mailing lists, also run from this machine. Again, the latest version of *MessengerPro* is also installed, just so that different systems can be evaluated and compared - although this person tends to come down on the side of *Pluto*, simply for ease of use, speed and number of 'essential' features required by this user.

This person also likes to listen to music whilst they work, so when the conventional stereo is not playing, *AMPlayer* is usually working it's way through a packed playlist, ranging from Pink Floyd and Queen to Tangerine Dream and The Moody Blues - possibly giving away a hint to this persons age...

Do you know the owner of this month's desktop? Find out in the next issue.

NEW LOWER PRICES!

Why use lazy old FAT clients, when you can have fast and efficient THIN clients?

Management
Control is centralised in a TotalBoot NC installation, making it easy to manage and providing a secure, tamper-proof environment. Because all software and configurations are controlled by the central TotalBoot server, the NC does not allow pupils to alter application settings and viruses cannot be introduced. Central management also saves time as the ICT co-ordinator will no longer have to move from machine to machine, solving individual problems. Furthermore, when the server is upgraded, all stations are instantly upgraded.

Applications
Along with curriculum content and communications applications, TotalBoot NC installations can run Windows™ and Acorn RISC OS applications, providing access to a range of industry standard and education specific software titles.

All NC TotalBoot installations come with NC Works - an integrated productivity suite including word processor, spreadsheet, database, graphing tool, drawing tool, painting package and JavaScript Web browser. Our NCs provide access to all the core ICT tools in an easy-to-use environment.

NC Base
- ARM 7500FE NC
- TotalBoot NT/NetManager ready
- 16MB Memory
- Keyboard and Logitech Mouse
- Network Cable

£289.00

NC 15"
- As above plus...
- 15" SVGA Monitor
- Headphones and 2-way Splitter
- Mouse Mat

£360.00

NC 17"
- As above but with...
- 17" SVGA Monitor

£400.00

NC 15" TFT
Multimedia
- As above but with...
- 15" TFT LCD Screen, with inbuilt speakers, so no headphones needed!

£540.00

Topcat / Zip / CompactFlash / ICA / Custom versions available, prices on application.



Access
When used with a NetManager server, TotalBoot NC installations provide Internet access and e-mail for all stations - the communications tools needed to plug into the National Grid for Learning. A wealth of curriculum material provides a powerful intranet learning resource. Both e-mail and web access can be controlled and logged thus giving you control over what can and, more importantly, what cannot be seen.

Integration
TotalBoot NCs can be integrated into an existing ICT infrastructure protecting the school's investment and extending the lifespan of resources. Old PCs, including 386s and 486s, can be used as thin-clients, giving a new lease of life to legacy systems.

As long term member of the Citrix Solutions Network (it's over 5 years since our first thin-client network was installed), we are ideally placed to implement and integrate your ideal network.



Cost Effective
As all files and applications are managed centrally, NCs do not require hard discs, floppy drives or CD-ROM drives on each terminal. This gives dramatic savings on unit costs. Expensive NT servers are not obligatory.

Because NCs have no moving parts, there is little that can go wrong. With PCs, most technical support requirements stem from changing user settings. Because this does not apply to NCs technical support is dramatically reduced. As a result, there are savings on repair bills and on costs associated with downtime and disruptions to teaching schedules.



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Precedence T.E.C.H.N.O.L.O.G.I.E.S

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86 Kings Hedges Road
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CB4 2PA

Tel: +44 (0)1223 562500
Fax: +44 (0)1223 563522

E-Mail: sales@precedence.co.uk
WWW: http://www.precedence.co.uk

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Internet Computer Solutions

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Beacon Hill
Hindhead
Surrey
GU26 6QE

Tel: +44 (0)1428 608121
Fax: +44 (0)1428 608123

E-Mail: sales@surftec.com
WWW: http://www.surftec.com

Prices exclude VAT and carriage. E&OE

Expressing an opinion

Espresso for Primary Schools started in 1998 and is now used by more than 100,000 pupils in England and Wales. Featuring video clips from ITN, newspaper reports from The Telegraph and specially filmed video from Espresso's in-house production team this totals an impressive 14Gb of raw data.

In January, *Espresso for Secondary schools* was launched with an initial 6Gb of data and cross-referenced to National Curriculum attainment targets. For those who like statistics that breaks down to a total of 1,000 video reports, 1,000 print media reports, 500 printable resources, 300 cached Web sites and 400 learning activities. So much for quantity, how about the price, and the quality?

Cost centres

Espresso is a satellite-delivered service for which you will have to pay an initial amount for a satellite dish and *Espresso* box for receiving and storing information which are installed for you but cost some £1,875. This is a major consideration, especially for smaller schools, but for rural schools it means that coverage and access is not the issue it is with cable, for instance.

Once connected to your network you'll be able to access *Espresso* from any machine on your network at any time of day using a standard Internet browser.

The site is updated automatically every Wednesday during term time at 4pm with the latest news stories and multimedia material. All included in the annual subscription.

However, there are other options. For instance, *Single Espresso* is the full *Espresso for Primary Schools* service running on a stand-alone PC, not connected to a network. A nice point is that it can also be used with a large monitor, projector or interactive whiteboard in classroom or school library.

If you want a taster before you commit, *Espresso Granules* are little bits of *Espresso for Primary Schools* on CD-ROM. This offers a low-cost way to get started. There are 13 *Espresso Granules* for KS1 and KS2 with prices starting at £49.99. Alternatively, *Espresso Machine* is the full *Espresso for Primary Schools* without weekly updates. It is likely to be of most interest to schools who want to try out the service without regular updates for now. Prices start at £875.

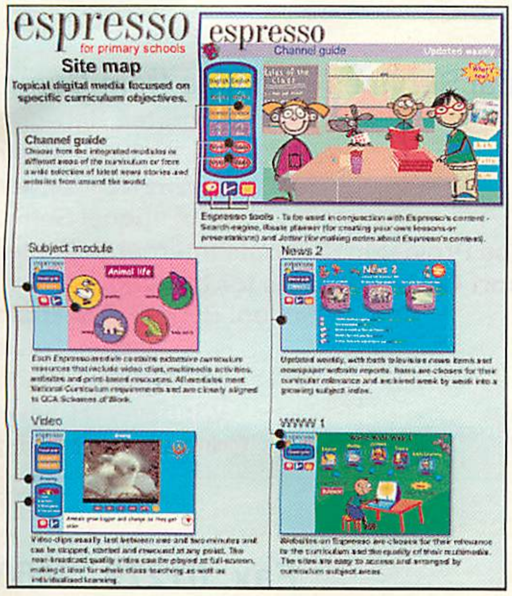
The bottom line is that this is not an inexpensive resource, but it can be accessed at different levels and if this leads to more focussed lessons, greater motivation and an increase in standards what is that worth?

Look and feel

Espresso for Schools looks and works like a Web site but it lives on a computer in the school. As it uses broadband technology the video is good quality and there are no frustrating delays waiting for downloads as the satellite is used to deliver weekly information updates.

Due to the broadband technology it uses you get instant access to high-quality full screen video as well as sophisticated multimedia activities that would take forever to download across the Internet. Another pro for schools is that *Espresso* is a self-contained site which means that Web sites are cached on the computer so there are no links to take children to dubious sites or just off task.

The aim of the site is to stimulate children and teach them skills relevant to their Key Stage and second to provide a rich resource that makes planning and researching lessons enjoyable and stress-free for teachers. Contemporary TV programmes appeal to pupils and the news footage and voice-overs are re-dubbed for greater relevance to the National Curriculum and bring current affairs from around the world into the classroom.



Primary matters

There is a standard look to *Espresso* and children are guided and advised by

News bites

All aboard

The Big Bus, for children aged 4 to 12. Developed by the team that created the award-winning ArgoSphere Web site, and launched formally at BETT this year. The Big Bus site can be experienced for free at **www.thebigbus.com**

Already in situ are interactive activities such as the *Other Worlds Adventure* from the Hoslers and *Music & Fireworks* with the promise of more original and engaging new materials planned for the coming months.

The aim is to help children play and learn at the same time and has been designed for use both in schools and in the home and has been developed in conjunction with schools in order to tie in with the National Curriculum.

The Big Bus is available to UK schools, educational centres and homes as a subscription service, allowing access to a wealth of learning materials and resources. However, a free site is also available for those who want a taster of the full subscription site.

The site takes children through a series of engaging and fun activities, delivering education in an original and entertaining way. Interactive content ranges from times tables, spelling and art, through to a journey through *Llama World*, fun stories, quizzes and even rocket science!

As well as retaining favourite activities from the original *Argosphere* site, many new features have been developed, including a journey to 'other worlds', as well as music and fireworks!

Children are encouraged both individually and in groups to take part in activities and can even compete with other pupils from schools around the world in fun quizzes.

The Big Bus site operates within a walled garden, providing a safe, secure environment, ensuring that pupils are not exposed to unsuitable material on the Internet.

Science of the gross

First there was the best-selling children's book, *Grossology*, by author and science teacher Sylvia Branzei, then a CD-ROM following all those parts of human body science that children love the best – from vomit to mucus. This spawned an interactive science roadshow which has now found its way to our shores and the Science Museum (**www.sciencemuseum.org.uk**)

The exhibition originally was premiered at *Science World British Columbia* in Vancouver, where it received tremendous accolades from schools and the public

cartoon characters Sal, Ash and their dog Scully. The curriculum is split into English 1 and 2, Maths 1 and 2, Science 1 and 2, and Topics 1 and 2.

Taking Numeracy as a starting point, how can *Espresso* be used to teach basic skills, motivate and develop problem solving? There are a range of activities such as estimating with *Ready Steady Cook*. Or handling and interpreting data with special reports on the *Rugby World Cup* to name but a few. Most important though is that there are always new items to choose from.

Ready Steady Cook is used as the hook for several Key Stage 2 activities covering estimation, money and time. Choosing estimation and you're shown the end of TV show when Fern Britton estimates who has won from the cards the audience holds up. This is followed by the screen test which checks your estimation and memory skills related to the TV clip which you can return to and check at any time.

There are two estimate tasks too, where you must use your estimate skills just like fern to put a number to the number of red tomatoes on show. A popular activity this one as children get faster and more accurate the more they play.

Finally, the *Find Out More* button provides printable captioned photos, a printable clock face with movable hands, Espresso bank notes and coins as well as till receipts to use in classroom, as can the games which you'll find in the things to do section.

When it comes to Literacy children can access a range of ready matter from book reviews from T2 and the Telegraph to TV news items on newly published books such as the Harry Potter series. Phonological awareness, phonics, word recognition, handwriting and spelling are covered in the *Alphabet* module which features a range of video (including modelling of handwriting), word games, rhyming activities and printable sheets.

For schools targeting literacy among boys and especially writing, a new addition of *Story Starts* could give them a motivational boost. Combining real-life video stories with supporting photos and activity worksheets, 16 news video stories are linked to Early Years curriculum objectives.

Four genres are covered in stories such as *The Hamster with a Bus Pass* (funny), *Ghost Hunt at The Royal Albert Hall* (scary), *Buried Treasure* (amazing) and the *Flying Sheepdog* (adventure) each accompanied by activities from interactive storybooks to word games. Topics cover History, Geography and PHSE, and links can be accessed via the Staffroom.

For instance, *Open the Door* is a Key Stage 1 unit where you can find yourself on the beach in Australia with a mischievous young girl called Tayla. This leads on to activities for Years 1/2 on habitats and living things. Again photos and pictures are available as with the Maths activities and when it comes to the things to do icon there is a nice set of colourful dominoes to use in the classroom as a consolidation activity.

For Key Stage 2 one of the modules is *Victorian Times* based at the Beamish Open Air Museum. Transport, home and working life as well as school are covered and there is even a search facility. Click on school, for instance, and you'll open four resource banks: video, pictures, photos and things to do. This provides children with video and text on board schools, curriculum, discipline, attendance, dress, writing, games and play.

Elements of these video clips are assessable through the photos button, while original documents and photographs can be accessed and printed via the pictures button. Finally they provide worksheets and discussion sheets for work away from the computer.



The aspect which hit me the most was that these activities set a context and purpose for teaching and learning which can be sometimes lost but is essential.

New modules are always being added, but there are an additional two button on the main contents/menu page which is referred to be *Espresso* as the Channel

and set record-breaking attendance levels.

You can walk through a giant nose to learn about air filtering and mucus production, learn about the central role the brain plays when vomiting, play *Gas Attack* pinball to discover which foods cause gas or learn why we sneeze by



launching dirt balls into a huge nose. Then children can move on to help a larger-than-life cartoon character release a giant burp before finding out what causes runny noses with *Nigel Nose-it-All*. All of these interposed with interesting factoids throughout the exhibit to learn more about our body's biology.

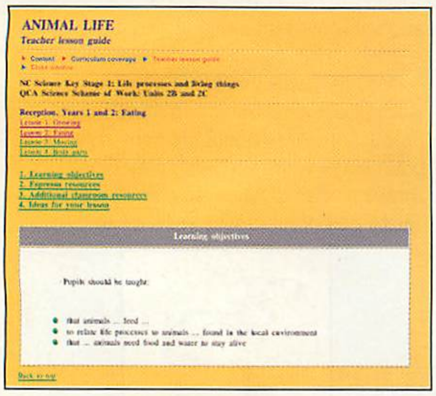
Little helpers

Nelson Thornes (**www.nelsonthornes.com**) have released a huge range of software tools this Spring. Such as *Teaching Scientific Enquiry* which has been developed in conjunction with ASE and is a CD-based product designed to enhance the user's understanding and teaching of scientific enquiry and investigations at primary school. Starting from the key science skills and the investigation topics in the *QCA Scheme of Work* it guides through the key points that underpin Sc1 with skill progression Levels 1-5 plus exemplars.

Meanwhile, secondary teachers can take advantage of an online interactive and stimulating resource for ages 11-14 to make medieval history fun with ICT. There are 12 units which can be used on a solo or group basis, such as *Dress the Norman Knight, Contenders on the Throne, The Bayeux Tapestry, Thomas Beckett Cartoon Strip*, and *The Black Death Diaries*.

Available on subscription for £120 per annum a free 30 day trial is available at **www.nelsonthornes.com**

Also on line is Keyed-in.com which is an interactive online Maths magazine, updated weekly, to support Key Stage 3 Maths and the provision of ICT. Provides extra material for the *Framework for Teaching Mathematics* and for *Key Maths Teacher Files*. Offers a vast selection of fun-to-do activities and resources including quests, quizzes, puzzles, strategy games, serious mathematical challenges and articles about famous mathematicians. New developments include active worksheets with instant feedback, timed mental maths tests and



Guide. These are News and TV. The latter provides access to topics such as the science and technology magazine *The Future Today*, which reports on developments such as a shark-skin suit or electric shoes. A nice aspect to this is the built-in glossary which runs underneath the video report.

Meanwhile the weekly news service gives access to *Espresso TV* news. Up to six video news stories come in each week through your subscription and you can access previous stories which are categorised by curriculum area. Again a glossary is built in, and as with all video pieces, these are available as full-screen video at the click on a button.

There is also an index to special reports on key events past and present. This is aimed at Key Stage 2, but *My First News* provides video news for younger children with past reports filed under more child-friendly headings such as Animals, Games or Families. Your subscription also includes selected weekly news stories (print and images) from the Electronic Telegraph, T2 and the Web.

Secondary options

Although the principles and format are the same, with lesson resources based around current and topical television programmes and reports, the primary cartoon characters have been replaced by animated teachers who guide students through the different subject areas. You'll also find resource banks covering English, French and PHSE as well as a full homework service designed for narrowband connections (modem links) enabling Key Stage 3 and 4 students to access this over the web from home.

In the staffroom

To give teacher support there is an online guide to how the service supports the Qualifications and Curriculum Authority schemes of work along with additional resources. This is located in the Staffroom which teachers can access from any *Espresso* screen via the coffee cup icon. Also to be found there are easy-to-understand tables listing the resources which each unit linking to the relevant resources including topical full screen video footage, Web sites and classroom activities.

Lesson guides can be found throughout the primary and secondary elements with links to the National Curriculum, QCA schemes of work with detailed information on learning objectives, *Espresso* resources (on-screen and printable), additional resources as well as ideas for whole class, individual and plenary work. In some LEAs the staffroom is also used as an information channel to communicate policies and initiatives as well as job vacancies!

There is also a teacher training element to *Espresso* with videos and support on a range of subjects such as classroom management, ICT in the classroom, planning and assessment and so on. Useful for schools with trainee teachers, NQTs or teachers who want to work on their professional development in ICT.

In a nutshell

Espresso is easy to use for teachers and children, it is usable in all areas of the curriculum, the weekly update works really well and motivates children to find out about current affairs as the language and topics are geared towards them. Colourful, engaging and relevant, the activities are well designed to fit nicely into Literacy or Numeracy Hours. The downside has to be the cost and this has to be a whole school decision which no one else can make for you.

Espresso for schools

Ages: 5+
Price: Satellite dish and Espresso box (approx £2000)
Single Espresso (approx £1500)
Yearly subscription (approx £6 per student)

Espresso Education
Riverside Studios
Crisp Road
Hammersmith
London
W6 9RL

Tel: +44 (0)20 8237 1200

www.espresso.co.uk
info@espresso.co.uk

differentiated activities to test calculator skills. Again available on subscription for £150 a year you can access this at **www.keyed-in.com**

Or how about **www.revisecomputing.com** which is a comprehensive Web site available to support students through Computer Science A Level and is free of charge. It includes a glossary of key words and concepts, an 'ask-the-author' facility to put questions and get career advice, subject specifications for all exam boards, further exam questions and worked answers, guidance and inspiration for AS and A2 project work.

Literacy for all

R-E-M (**www.r-e-m.co.uk**) has teamed up with the National Literacy Association for a project named *Click On It!* The scheme involved children that are underachieving in literacy due to their circumstances and not through lack of ability. Research has shown that children in care frequently achieve lower GCSE results than those living in their own homes.

The idea behind *Click On It!* scheme is to use the medium of ICT as a motivational tool. An eye-catching catalogue contains reviews of software packages along with a resume by their teachers/carers as to how the software has improved the child's literacy skills. The project is running in three schools in Birmingham where a cross-section of Year 5 and 6 children are involved as well as pupils from a school in Kent and an additional 20 children in two children's homes in Hounslow.

Soft strategies

Softease (01335 343421) have created a new National Curriculum resource pack, *Key Stage 1 Developing Literacy*. The pack comprises activities and comprehensive teacher notes with photocopiable pupil record sheets directly targeted at complying with the National Literacy Strategy.

The pack contains activities which utilise one or more components of the *Textease Studio* range and summarises how exercises can be used to achieve goals set out in the National Curriculum. *Developing Literacy* incorporates tasks ranging from early sorting and matching activities to complete lesson resources combining multimedia and resource banks combining text, images, sounds and animations.

The CD-ROM provides a large selection of on-screen and printable worksheets as well as award templates. Indexed, each item indicates whether the activity is based on word, text or sentence level work. And the cost? Just £29 for a site licence.

Pam Turnbull
educ@acornuser.com

Your technical queries answered

Last months plea for programs to decode more modern JPEG files resulted in Neil Farnham-Smith informing me that a combination of *Photodesk* and *JCut* would open anything he threw at it. I downloaded *JCut* and it certainly did open some NASA 3D images of Mars. However, *RISCOS Ltd* did tell me that "the latest version of *ChangeFSI* included with the *RISC OS Select* scheme does, we believe, support all the new EXIF format JPEGs such as are generated by the latest digital cameras".

The also go on to say that "perhaps you should consider subscribing to the *Select* scheme?".

Neil was also not too happy about my comments on his article concerning digital cameras, but to save you the details of our discussion, let's turn to David H Wild who has a point to make:-

I was interested to read your comments about the current crop of digital cameras, but feel that you were rather too gloomy about their usability with our machines. It is true that most of them come with USB connections these days, but any *RISC OS* machine with a two-way printer port (which is probably most of the machines in serious use these days) can use the Surftec readers for either *CompactFlash* or *SmartMedia* cards. I notice that if you buy a camera from Photodesk one of these readers comes with it. Even if USB ports appear for our machines in the next month or two, it is unlikely that most people will have them fitted, and have the right drivers for them, before the end of this year. The reader method is available off the shelf. About three years ago, I bought my first digital camera, a Kodak *DC10plus*. This came with cables and software to allow me to connect to the PC card using the serial port. In fact, I found it much less messy to use my Psion *5mx* with *PsiFS* to do the transfer rather than mess about with all the extra cables. Another point is that, with either the Psion or the Surftec reader, you can transfer the pictures from one *CompactFlash* card while the other one is still in the camera. I bought a Surftec CF reader at the Birmingham show, and there is no doubt that it is much quicker than the Psion route - but even that is better than nothing, and I must have transferred nearly a thousand pictures using that method. The real lessons seem to be to stick to one of *CompactFlash* or *SmartMedia* - and most of the cameras seem to use one or the other.

Thanks for that; the point I was making is that you should make sure that you can get the pictures into your computer before you buy it.

Of course, if you are buying a camera from an established *RISC OS* market supplier then it won't be a problem. It's when you go into a normal electrical retailer you might buy something you shouldn't. I don't know of anything to read Sony memory sticks, for example, so our choice can sometimes be limited when it comes to connectivity.

Philip Draper would like to comment on the *Zip* drive compatibility problem we have covered lately.

I had a parallel *Zip* drive working with *RISC OS 4* on the *RiscPC* I used at work until I retired recently. I bought it from Alsystems, when they were still operating, along with *ZipFS*. All was well, including the changeover to *RISC OS 4*, until I got a new version of *ZipFS* from Partis (as Alsystems were dead by then). It would not work with that; apparently I also had to buy some more of their software – I think it was *PowerMgr*. I thought this was unreasonable, so I went back to the old version of *ZipFS*. The drive was very slow, especially with the PC card, and the effect of forgetting it was in use and trying to print something at the same time was fairly disastrous, but there was no doubt it worked.

That might be a solution and on the same subject Bob Sapey has had a similar experience:-

I had similar problems with Alsystems's *Zip* software on a 250 parallel *Zip* drive. Before upgrading to *RISC OS 4* I carefully backed up all my programs and files onto several *Zip* discs, but when I tried to restore them the drive could not read the discs. Fortunately, I had done a second backup on a second drive or I would have been in a pickle! The problem seems to be related to the *RISC OS* format as I can still use the drive if I have the discs formatted to *DOS*. Although it appears to work when I format to *RISC OS*, the disc cannot be read. I did wonder whether this was related to the change of format with *RISC OS 4*? I also e-mailed Alsystems last summer when this happened but have yet to receive a reply.

Fine; as a final word on this I did say that I hadn't received any communication from *RISCOS Ltd* and received the following from them:-

We did in fact reply the same day, (copy below) so I am more than a little annoyed that you decided to claim in your column that you had a thundering silence from us 4 weeks afterwards.

Well, I was surprised at this and so checked my e-mail, only to discover I was wrong and they did reply, so sorry for that. They said:-

We are not aware of any other problems with *Zip* drivers. We have tested a drive today with the *ZIPFSLite* which works OK with *RISC OS 4* and *RISC OS Select*.

The customer must be loading something else which is interfering with the parallel port such as *Turbo* drivers.

This does raise a moot point as to who takes the responsibility for this sort of thing, especially when one of the parties has gone out of business. In the end I suppose it is not the operating system vendor that is to blame, providing he doesn't mind people saying it won't work with sploge. This is a problem that will become more acute as time passes and technology changes, so it's something we all have to be aware of.

Anyway, just as this was going to press I received this from Alex Candlish which perhaps is the final word:-

Mid-January response from Partis suggests using `PowerMgr MiscOperations-Clean Boot Sector`. Not an option on my software! Bit the bullet, forked out for up-to-date software from Partis – this

enabled using the *RISC OS* format after partitioning but it was still unable to read original saved data. Final solution:- back to OS 3.7, saved *Zip* disc data to hard drive, replaced OS 4 partitioned original discs, resaved data to *Zip* discs – not scientific but it achieved the objective, finally. Many thanks for your efforts on my behalf and to Tim Powys-Lybbe for his response.

Next up Robin Hampshire continues his saga with his 1 wire bus project:-

Thanks for your continuing advice in the *Rambles* column. Following on from my last report, I have now got the serial port driver modules working properly with my application, this has helped enormously, and made running background tasks a lot smoother.

Furthermore, as an example of allowing forward planning and making use of hardware abstraction, I've been able to code things so that if sometime in the future I use my application on a machine with multiple serial ports, I only have to change the value of one variable in my configuration file to allow connection to any port supported by the drivers.

A couple of months ago I sent you a logic diagram for stepping through the *1-Wire Search ROM* routine, whereby any 1-wire devices on the network can be detected. So far I have had a maximum of 75 devices on my net temperature sensors, input / output switches, branch couplers, counters and A/D converters, and the algorithm consistently finds all of them with no repeats and no omissions. So when I've saved up for the rest of the chips, 2^48 - 75: nearly there now, I'll let you know whether it works for all permutations :-)

As far as the 1-Wire network itself is concerned, I have now finalised my designs and am slowly soldering all the components together. I am using twenty temperature sensors, twenty four input / output switches, 6 branch couplers and other bits and pieces, all connected via cat5 cable.

Unfortunately some of the components only come in surface mounting and TSOC packages, but I've managed to get around that by using surface mount to dual in line adapters from Radio Spars, RS 158-2878, a 1mm-bit soldering iron, a magnifying glass on an angle poise and lots of patience. Actually, I'm quite pleased with the results.

As an avid *S-Base* fan, I've produced many *S-Base* applications for my own use, from wages administration to central heating control, celestial navigation for mariners that's star sights.

I have also produced a database to keep track of a regional small holders' association training matters, for which I am the training coordinator.

So as you can see I have been looking forward to Steve Turnbull's *S-Base* tutorial ever since he first mooted it on the *S-Base* mailing list. Steve is well known in *S-Base* circles as someone who can really make database applications sit up and perform, so I'm looking forward to picking up lots of hints and tips during the course of his tutorials. *S-Base* really is a superb development environment, and when the new version is running properly on both *Linux* and *RISC OS* it will be even better.

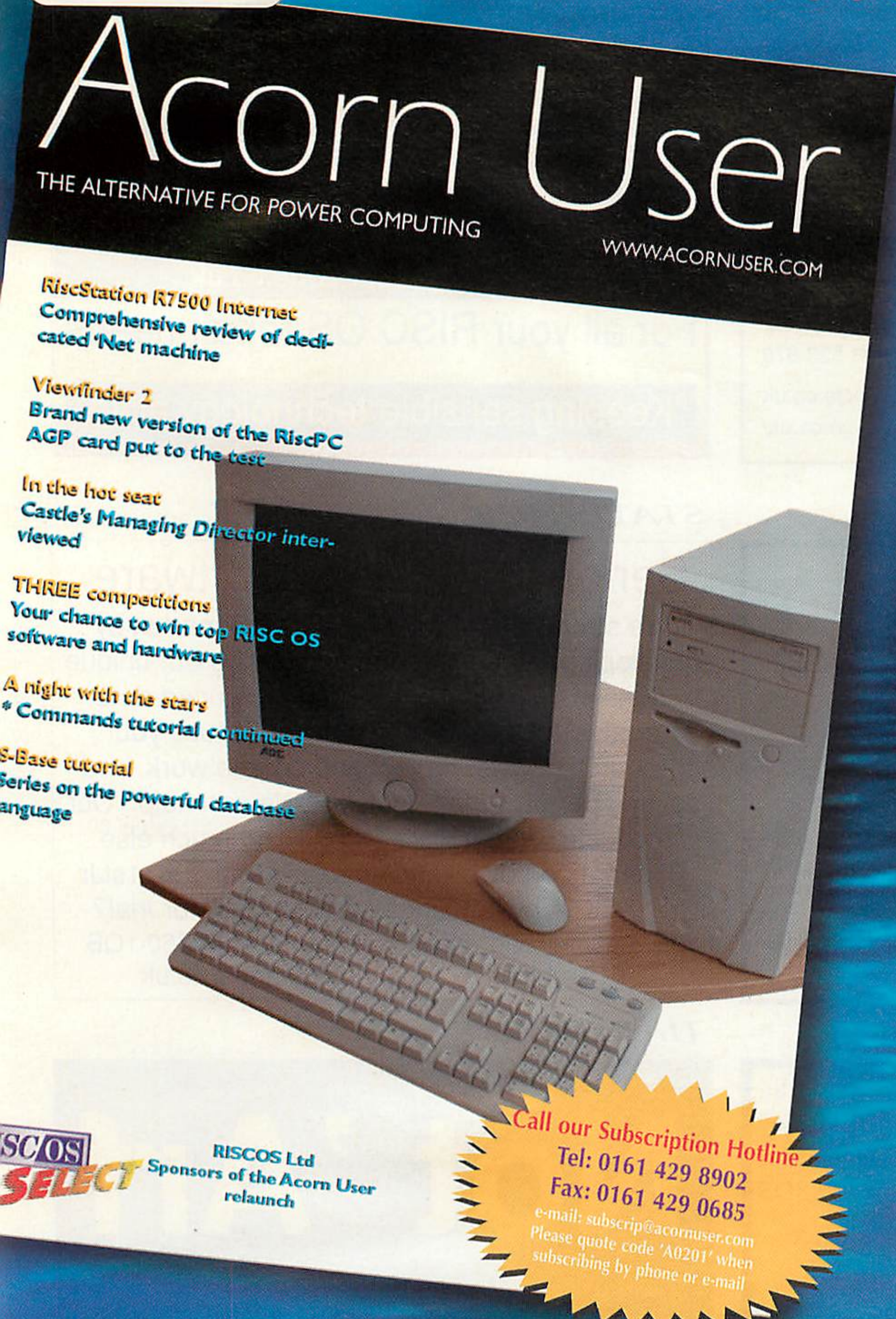
Thanks for that update, I am pleased I got you started on this project, you are an inspiration to us all.

Finally George Ceridwen resurrects a past topic when he writes:-

In the April issue of *Acorn User*, you published my question on how to use the screen dump facility on *Paint* on the *RiscPC*, OS 3.7. I am producing graphs using *BASIC V* in Mode 0, and find that *Paint* is much easier to use than *ChangeFSI* for producing black line graphs with a white background, suitable for publication as figures in a scientific journal. Lettering is easy, but I also need to add some lettering at the left hand side of the graph; that is, it needs to be rotated through 90 degrees. Can you suggest how that can be done?

Well, my initial thought was that you could put your paint file into a draw document and then add the text. This should allow you to rotate it as mentioned in the *RISC OS 3* user guide. However, when I tried this I found there was no rotate box on the text I put in. Not being a great user of *Draw* I was puzzled until it struck me that I had initially put in the text using the system font. If you change it to any other font next time you select it the text will have a rotate handle at the top of the box and you can then drag it around to any angle you like. I am sure there are many other packages that will do this but everyone has *Draw*.

Mike Cook
rambles@acornuser.com



Issue 243 Feb 2002

- Re-launch and re-design issue
- Odyssey Internet reviewed
- Insignia review
- BETT Review
- S-Base tutorial continued

Issue 242 Jan 2002

- Digital cameras from Fuji
- Digital cameras from Olympus
- BETT Preview part 2
- S-Base tutorial

Issue 241 Christmas 2001

- Retro-gaming with Repton
- Networking your home
- BETT Preview part 1
- All the regulars

Issue 240 Dec 2001

- RISC OS 2001 Show Report
- The machines you can buy now
- Gadgets for the holiday season
- All the regulars

Issue 239 Nov 2001

- RISC OS 2001 Show Guide
- Everything about RISC OS 4+
- What is XML all about?
- E-Commerce explained

Issue 238 Oct 2001

- Digital Video Editing & RISC OS
- Review: TextEase Presenter
- Fonts: From PC to RISC OS
- Processing NASA digital images

Issue 237 Sep 2001

- Kinetic Risc PC at 300MHz
- Viewfinder's new enhancements
- Digital audio to digital CD
- The Web explained

Issue 236 August 2001

- All about Slym
- Eco-friendly Web
- Messenger Pro review
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- Report on the RISC OS Expo

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Acorn User relaunch deemed a success

Dear Sir,

First up, congratulations on the new design of the site, it looks far far better, a lot more professional and at just the right time.

I know it might not be that easy, but could you produce a clickable map for the 'where to buy' section, with a map of the UK, central Europe (for Austria, Germany etc.) and New Zealand? Users could click on, say, the south-west of England which has its own imagemap, and then a list (perhaps Javascript pop-up?) of stockists in that area?

Rod Dennis
via e-mail

We really like that idea and will implement it as soon as we can. Please keep your ideas coming in and, of course, don't forget to add to the stockist list by e-mailing our Webmaster with details.

Dear Sir,

Firstly may I congratulate you on your first production as Editor of the new style *Acorn User*. I appreciate the increase in content, but I do have one reservation concerning it's presentation. I can't imagine that I am the only one of your readers who had so much difficulty reading some columns, namely those three "In brief" and the three on "News bites".

The difficulty I had was in reading black medium (10pt. ?) type on the purple background. The problem was exacerbated by the fact that I was reading the magazine in artificial (electric) light.

I would accept that it is easier to read in good daylight, though even then, not as easy as the bolder headings (which are in white anyway).

I found it such a strain that I just gave up after the first few lines. May I make a suggestion, therefore, that if the background has to be that shade of purple, you make the font white or yellow. I should imagine that a lot of your readers settle down after a day's work to read *Acorn User* and at this time of the year electric lighting seems to be the only option.

I feel sure that I can not be the only one to experience this problem. I would have persisted had the text still been 10pt. but white or yellow.

Tom Beeley
via e-mail

Believe it or not, that purple background was supposed to be blue. This was a production error which should now be rectified in this issue. None-the-less, we have taken the opportunity to make the background much lighter, so it should be much easier to read.

Apologies to those readers who found the columns difficult to read. I hope you find the situation resolved in this issue.

Dear Sir,

Congratulations on a much improved magazine. I got quoted in the January issue (from response to the questionnaire). I'm pleased to say you have made it much easier to find/read/follow articles. The magazine was back to being a 'good read', with plenty of space on the page now that the swirly bits have gone. The font is nice too. I seem to remember suggesting an Acorn Publisher type remake – whoever put together the new ideas, it's plain you are listening to the readers now.

I particularly enjoyed the new 'Who's desktop' series you started last month and the PD page.

Announcing due dates for shops/subscribers on csa.announce is good too. Saves us all wondering what is happening.

All in all I felt the magazine was good value for money and there are several articles I want to reread - there was so much info.

Wendy Gray
via e-mail

Thank you for the compliments – we are very pleased at the high number of positive comments we have been receiving. Most people seem to like the new overall design of the magazine and the extra content has certainly gone down well with just about everyone.

The Keyhole series is a good bit of fun – it's amazing how interesting someone elses computer desktop can be! – but it also serves a useful purpose. Everyone has their own favourite applications and utilities and so it is quite possible that you might pick up a good tip or learn of a utility that you've been needing for ages. So far, the series is also proving just how well-suited to productive use RISC OS machines really are.

Dear Sir,

I read your A7000+ article with interest, as in November 2000 I was persuaded by Castle salesmen to buy a *Kinetic RiscPC*. My initial experience was much like yours but not being a computer or electronics expert my progress was pedestrian at best.

When it came to the Internet, which was one of the primary reasons for buying the *Kinetic RiscPC*, progress stopped altogether. A number of long phonecalls and weeks later, Castle agreed to send a CD with supposedly everything set up. No better. Much frustration and swearing at Castle on the phone, but I was finally connected to Freeserve and *Oregano* ran. I even received and sent an e-mail and gave my wife her own e-mail address and an extra one for myself.

There, progress ceased totally and it has been that way ever since. Castle refused to help me further stating that they only install the software on the computer and had no responsibility or commitment that it should work, and provided no support to *Kinetic RiscPC* purchasers.

They provide no help for *Messenger*, *Newshound* or anything else. I have never got filtering to work, and *Newshound* does absolutely nothing.

Even with *Oregano* when I asked about downloading sites to read offline and saving site addresses, Castle replied that nowhere did they say that they provided that possibility.

Very much later I came across *Bookmaker* and got that to work so at least I can save Web site addresses. I had also bought *WebsterXL*. It is slow and gets to less sites than *Oregano* but does allow me download some sites I want to save. It is all very poor compared with friends with Microsoft PCs, though.

As for your comment about a directory crammed full of Internet goodies. That they may be to you but for the non-Internet genius there is nothing to say what they are, what they do, or how I can make use of them at all. What is a *FreeTerm* Telnet Terminal? What is an *FTPc*? FTP site - what would one look

like if I found it? What is *ICQ - AcornICQ?*, *Newsdir* - whoever wrote the helpfile says he does not know where the logfile is - what IS the logfile? When help files suggest I start messing around in the computer innards with star commands I opt out knowing from bitter experience that the computer just goes haywire and I am likely to have to give it a factory reset and start loading everything from scratch, that is if I can find again what was setup. That was from the days of a freestanding *A420*, the complexity of a *Kinetic RiscPC* is such that, I have to admit, I dare not even try!

Regarding your comments on the wonders of *EasiWriter*... It's ability to read and write to Microsoft PC users was also a selling point I fell for. Nothing I have received as attachments from friends can be read. A query to Castle, who replied that they never claimed that the *EasiWriter* installed could read or send legible Word documents to Microsoft PCs. BUT if I sent them £50 Castle will send me an updated version 7. Will Castle guarantee this will work? Answer was No but send £50 and I could try it out.

What else? The CD drive is extremely noisy, roaring away like a revving motorbike, bringing up *CDFS* error messages and freezing often when trying to access CDs. There is no way *RISC OS* machines can read Microsoft PCs CDs, eg those for the 1881 census etc. For these a Microsoft PC is essential. The list can go on.

The page 3 comment from Paul Middleton reads like the Blair *Government*'s response to complaints about the NHS - attack the complainer to stop him/her saying what their own experiences are and to dissuade anyone else. NO WAY will I recommend to anyone that they get a *RISC OS* computer. If people ask what I have I now have to reply that unfortunately I do not yet have a Microsoft PC.

If Paul Middleton and others at the top want to be treated seriously they must ensure that what is sold works without the aggrevation I continue to suffer, and works in a simple way for the majority out there who are totally non-expert computer users.

Eric Dobson
via e-mail

It is unfortunate that you seem to be having such problems with your Kinetic RiscPC. However, I think a lot of the problems stem from looking in the wrong places for help and perhaps one or two unreasonable expectations.

When Castle supply you with the Oregano Web browser, they offer support for the browser only. All of the other applications, including the e-mail software, are not supported by Castle. This is because they are freeware or public domain and as such any support would come from the authors or other users on the Internet. All that Castle are doing is bundling them with Oregano for your convenience. I would advise you to buy the professional version of Messenger from RComp, as this comes with a good printed manual and, of course, telehpone and e-mail support. You will have filtering and newsgroups setup in no time at all. Once you've achieved this, help for all the other applications is at hand via e-mail groups and Web sites.

Because Word files are not EasiWriter's native format, not even Icon Technology (who publish the program) would guarantee full compatibility with all Word files. However, I can tell you from personal experience that the latest version of the software will cope with just about any Word file you care to throw at it. Castle supply an older version of the software to provide wordprocessing facilities on new machines.

Indeed, any CD-ROM produced for Windows will not run on RISC OS, nor MacOS or Linux for that matter. This is perfectly normal. If RISC OS could load Windows CDs and applications, then it would not be RISC OS!

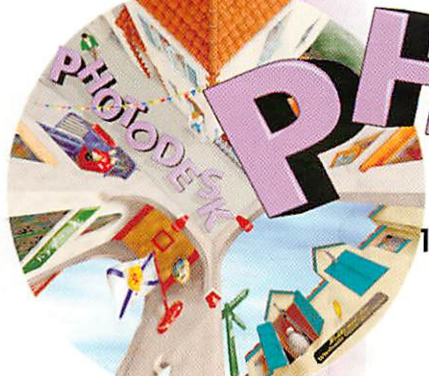
If, however, you get CDFS errors and freezes when trying to access RISC OS CDs, audio CDs or cross-platform CDs (for example, a HTML-based CD-ROM) then you should contact Castle to have the CD-ROM drive repaired or replaced.

In his commentary, Paul Middleton was simply saying that we should pull together and promote the good things we have, whilst the things we want are worked on.

A Kinetic RiscPC should be a capable and easy-to-use machine for Internet access and general home use. In fact, that is precisely what I use mine for, as well as producing a lot of Acorn User on it. If you have major difficulties that you cannot resolve, why not write to Hints & Tips, where we will try and answer your questions?

My final advice is to give RComp a quick call and have a chat about their various Internet products. I think you need DialUp and MessengerPro – your Internet experience will then be transformed.

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Canon S800 £375

The S450 and S4500 are brilliant general purpose printers with separate ink tanks, the price includes a PhotoReal driver and a standard set of cartridges (4 colours) The printers may be upgraded to stunning photo-quality with the optional photo pack which includes a photo cartridge and pack of PR101 pro paper.(£55) Price of printers with photo pack: S450 A4 £199, S4500 A3 £399.

The S800 is Canon's top of the range photo printer, it uses the latest Canon six ink technology with superfine droplet size. The PhotoReal driver utilises the printers capability to produce really superb photographic output.

All printers include PhotoReal software

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Photo Real

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A to Z ACCESSORIES

DIGITAL CAMERAS

MAKE & MODEL	CAMERA	+16MB CARD	+32MB CARD
CANON Powershot A10	£230	£244	£248
CANON Powershot A20	£288	£302	£306
CANON Powershot G2	£628	£642	£646
CANON Digital Ixus (300)	£425	£439	£443
CANON Digital Ixus V	£365	£382	£386
CASIO QV2900	£318	£332	£336
CASIO QV3500	£328	£342	£346
CASIO QV4000	£488	£503	£508
COOL I-CAM	£45	N/A	N/A
FUJI Finepix A101	£148	£156	£161
FUJI Finepix A201	£178	£186	£191
FUJI Finepix 1300	£148	£156	£161
FUJI Finepix 1400	£168	£176	£181
FUJI Finepix 2600	£238	£246	£251
FUJI Finepix 2800	£318	£326	£331
FUJI Finepix 30i	£288	£296	£301
FUJI Finepix 4700	£368	£376	£381
FUJI Finepix 4800	£378	£386	£391
FUJI Finepix 6800	£498	£506	£511
FUJI Finepix 6900	£628	£636	£641
FUJI Finepix S601	see website	see website	see website
FUJI Finepix S602	see website	see website	see website
JENOPTIK JD1300	£152	£167	£172
JENOPTIK JD160	£40	N/A	N/A
JENOPTIK JD2300Z3	£230	£244	£248
JENOPTIK JD3300Z3	£358	£372	£376
JENOPTIK JD350 multimedia	£120	£134	£138
JENOPTIK JD350 video	£90	£104	£108
JENOPTIK JD350E	£80	£94	£98
KODAK DC3200	£134	£148	£152
KODAK DX3215	£198	£216	£226
KODAK DX3500	£218	£232	£236
KODAK DX3600	£268	£282	£286
KODAK DX3700	£268	£282	£286
KODAK DX3900	£358	£372	£376
KONICA KD200	£228	£242	£246
KONICA KD300	£388	£406	£416

MAKE & MODEL	CAMERA	+16MB CARD	+32MB CARD
MINOLTA 2300	£215	£229	£233
MINOLTA E201	£208	£222	£226
MINOLTA E203	£218	£236	£246
MINOLTA Dimâge 5	£508	£522	£526
MINOLTA Dimâge 7	£718	£732	£736
MINOLTA Dimâge X	£338	£352	£356
MINOLTA S304	£338	£352	£356
MINOLTA S404	see website	see website	see website
NIKON Coolpix 775	£263	£277	£281
NIKON Coolpix 885	£458	£472	£476
NIKON Coolpix 995	£585	£599	£604
NIKON Coolpix 995 Premier	£675	£689	£693
NIKON Coolpix 5000	£888	£902	£906
OLYMPUS C1	£158	£166	£171
OLYMPUS C1 Zoom +FREE Case	£168	£176	£241
OLYMPUS C40	£528	£536	£541
OLYMPUS C200	£298	£306	£311
OLYMPUS C700	£398	£406	£411
OLYMPUS 2040 +FREE Leather Case	£365	£373	£378
OLYMPUS 3020 +FREE Leather Case	£458	£466	£473
OLYMPUS 4040 +FREE Leather Case	£578	£586	£591
PENTAX EI100	£168	£182	£186
PENTAX EI200	£388	£402	£406
PENTAX Optio 330	£448	£462	£466
PENTAX Optio 440	£618	£632	£636
RICOH RDC7	£388	£396	£402
RICOH RDCi500	£518	£532	£536
RICOH Caplio RR10	£334	£352	£362
RICOH Caplio RR1	£548	£556	£562
SONY DSC S85	£618	see website	see website
SONY DSC S75	£517	see website	see website
SONY DSC-F707	£867	see website	see website
SONY P5	£479	see website	see website
SONY P50	£258	see website	see website
SONY CD200	£698	see website	see website
SONY CD300	£867	see website	see website
SONY FD200	see website	see website	see website

READERS AND ADAPTERS

FUJI ZIO USB Smartmedia reader/writer	£29
JENOPTIK USB Compact Flash reader	£24
JENOPTIK USB Smartmedia reader	£24
SANDISK Compact Flash USB reader	£27

SMART MEDIA

FUJI 16MB	£9
FUJI 32MB	£15
FUJI 64MB	£30
FUJI 128MB	£60
SANDISK 16MB	£12
SANDISK 32MB	£17
SANDISK 64MB	£34
SANDISK 128MB	£68
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FUJI 64MB	£32
FUJI 128MB	£58
IBM 340MB microdrive	£178
IBM 1GB microdrive	£288
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SANDISK 32MB	£22
SANDISK 64MB	£35
SANDISK 128MB	£60
SANDISK 256MB	£118

MULTIMEDIA CARDS

SANDISK 16MB	£20
SANDISK 32MB	£30
SANDISK 128MB	£58

SECURE DIGITAL

SANDISK 16MB	£24
SANDISK 32MB	£34
SANDISK 64MB	£58

MEMORY STICKS

SONY 16MB	£28
SONY 32MB	£39
SONY 64MB	£54
SONY 128MB	£114

BATTERIES & CHARGERS

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